SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1962

No. 97

THE BALTIMORE & OHIO RAILROAD COMPANY, ET AL., APPELLANTS,

vs.

BOSTON AND MAINE RAILROAD, ET AL.

No. 98

MARYLAND PORT AUTHORITY, ET AL., APPELLANTS,

vs.

BOSTON AND MAINE RAILROAD, ET AL.

No. 99

INTERSTATE COMMERCE COMMISSION, APPELLANT,

vs.

BOSTON AND MAINE RAILROAD, ET AL.

APPEALS FROM THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MASSACHUSETTS

INDEX

RECORD PRESS, PRINTERS, NEW YORK, N. Y., NOVEMBER, 1962

VOLUME X

	Original	Print
I. C. C. Exhibits—Continued		
No. 117—Verified statement of Leo Pisterino	4600	3416
No. 118—Verified statement of William J. Hartney	4608	3422
No. 120—Verified statement of R. E. Petterson	4613	3425
(Exhibit)—Statement showing cost of handling import and export traffic between differential territory and Ports of Hampton Roads and Boston	4617	3429
No. 121—Analyses of Census Bureau tabulations upon which was based Exhibit A-6 of Witness Laux Exhibit No. 107	4618	3431
No. 122—Corrections to Exhibit A-2 of Witness Laux Exhibit No. 107, and of Exhibit WSH-1 and summaries therefrom, Witness Hamill Exhibit No. 70; indicated by study and comparison of underlying data furnished by Bureau of Census and Maritime Administration	4629	3442
No. 123—Verified rebuttal statement of F. H. Clark	4646	3459
No. 124—Corrections in Exhibit No. MLM-2 Witness Mollman in I&S Docket 6615	4656	3467
No. 125—Statement of E. M. Talbott	4660	3471
(EMT-1)—Revenues, out-of-pocket costs and ratios of representative movements of import traffic terminating in differential territory via Port of New York	4696	3499
(EMT-2)—Revenues, out-of-pocket costs and ratios of representative movements of export traffic originating in differential territory via Port of New York	4704	3507
(EMT-3)—Extracts from Senate Document 63 (78th Cong.; 1st Sess.) entitled "Rail Freight Service Costs in the Various Rate Territories of the United States—Letter from the Chairman, Interstate Commerce Commission"	4719	3523

	Original	Print
I. C. C. Exhibits—Continued		
No. 125—Statement of E. M. Talbott—Continued		
(EMT-4)—Reproduction of testimony given in Ex Parte 212 by operating representatives of respondent carriers	4776	3580
(EMT-5)—Number of lighters towed per tugtows, months of September, years 1948 to 1957, inclusive	4827	3616
(EMT-6)—Tons lightered and cars floated, B&O-CNJ marine operation—Jersey City, N. J., years 1948 to 1957, inclusive	4828	3617
(EMT-7)—Baltimore and Ohio traffic covered by the lighterage pier and/or marine service portion of the terminal cost study at New York	4829	3618
(EMT-8)—Import-export traffic through the Port of New York via the B&O and CNJ for the year 1956 and a comparison of September 1956 with the monthly average for the year	4830	3619
(EMT-9)—Computation of adjustment to relate certain marine expenses at New York for the month of September 1956 to the monthly average for 1956 based on comparative traffic volumes as described	4831	3620
(EMT-10)—Computation of adjustment to relate certain lighterage pier expenses for September 1956 to the monthly average for 1956, based on a comparison of traffic volume as described	4832	3621
(EMT-11)—Import-export traffic through the Port of New York via Pennsylvania Railroad System for the year 1956 and a comparison of September 1956 with the monthly average for the year	4833	3622
(EMT-12)—Memorandum to Robert F. Wagner from Alfred E. Perlman, dated July 2, 1958	4834	3623

	Original	Print
I. C. C. Exhibits—Continued		
No. 126—Letter from the Assistant General Solicitor of the New York Central System to J. L. Heywood, dated February 20, 1958	4838	3626
No. 127—Letter from Richard R. Bongartz to John H. Colgren, dated February 26, 1958	4841	3629
No. 128—Letter from Richard R. Bongartz to John H. Colgren, dated February 28, 1958	4842	3630
No. 129—Letter from J. L. Heywood to Wesley F. French, dated March 19, 1958	4844	3632
No. 130—Letter with enclosures from Richard R. Bongartz to John H. Colgren, dated April 7, 1958	4846	3635
No. 131—Letter from John H. Colgren to R. R. Bongartz and Jervis Langdon, Jr., dated April 22, 1958	4853	3643
No. 132—Letter with enclosures from Richard R. Bongartz to John H. Colgren, dated April 28, 1958	4856	3646
No. 133—Letter with enclosure from Richard R. Bongartz to John H. Colgren, dated May 1, 1958	4859	3651
No. 134—Answer of B. & O.—Jersey Central to John H. Colgren's letter of April 22, 1958	4868	3661

[fol. 4599] Secretary's Certificate (omitted in printing).

[fol. 4600]

I.C.C. Exhibit No. 117

This statement is verified. Unless written request for cross examination is received by the affiant or his attorney, Henry E. Foley, 10 Post Office Square, Boston 9, Mass., not later than ten days prior to the hearing at which such evidence otherwise would be offered, affiant desires that the statement be considered for incorporation in the record without his personal appearance as a witness.

I & S DOCKET NO. 6615

Verified Testimony of Leo Pisterino

On Behalf of the Port of Boston Commission

[fol. 4601] Q. Kindly state your name, address and business.

A. I am Leo Pisterino. I am president of Pisterino & Co., Inc., a firm of freight forwarders and custom house brokers, whose main office is at 40 Central Street, Boston, Massachusetts.

Q. How long have you been in this business?

A. My firm has been engaged in the import and export business for about sixty years. I myself have 29 years' experience in this business.

Q. Do you do business only at Boston?

A. No. Our firm is located in Boston, but we solicit business throughout the country and we handle shipments through many different ports. In fact, I would say that, in recent years, we have handled more tonnage through ports other than Boston than through Boston.

Q. Are you familiar with the testimony in this record of witnesses sponsored by the port interests opposing equalization, to the effect that an alleged superiority of the freight forwarding, custom house brokerage and foreign banking services at New York City over the analogous services available at other ports is so great that, for this

reason among others, Philadelphia, Baltimore and Norfolk need a preferential rate to compete effectively for differential territory export and import traffic?

A. Yes, I have read testimony to that effect.

Q. Would you care to comment thereon?

[fol. 4602] A. Yes, I would. I want to make three points in that connection:

First, I want to say that we at Boston do not suffer from the same inferiority complex with respect to our freight forwarding, custom house brokerage and foreign banking services, as apparently do the ports south of New York. *We* are not unable to, and are not afraid to, compete *at parity rates* with all North Atlantic ports, including New York. In fact, we are eager to do just that, for we are convinced that, once our offers can be weighed against those of our counterparts from competing ports on the basis of the comparative quality and efficiency of our services alone, at equal rates, we will obtain a fair share of differential territory traffic.

My second point is that, in my opinion, the ports opposing equalization are suffering from an inferiority *complex,* but not from any real inferiority, with respect to their freight forwarding, custom house brokerage and foreign banking facilities. Having enjoyed for so long their preferential rates, and the concomitant lack of any pressing need for real competitive effort, they have come to believe that, without the rate advantage, it will be impossible for them to compete. As one who, for almost 30 years, has had to compete on a *rate parity basis* with New York, I want to assure the Examiner, as well as these gentlemen from Philadelphia and Baltimore, that *it can be* done, though admittedly it will take more effort than it did with a preferential rate.

[fol. 4603] Thirdly, it is contrary to fact to assume that import and export business, which is handled by New York forwarders, brokers or banks, will, for this reason, move through the port of New York. It is just as easy for these New York services to handle shipments through outports —and they are just as ready and eager to do it—as it is for my firm to handle shipments through ports other than

Boston. As I have previously stated, we do this all the time and without any difficulty whatsoever. These agencies have little or no incentive to use their influence to route shipments through New York.

My firm is in constant competition for business with New York brokers and forwarders and we compete with them quite successfully. We are perfectly willing, as are the New York firms, to ship through Boston, New York or any other port, and the fact that the physical location of my firm is at Boston is no handicap in being flexible as to choice of port. Frequently, the choice of a port is not up to the forwarder or broker; it is fixed in the shipping documents. But even if and when the freight forwarder or custom house broker is in a position to influence the routing, he would not ordinarily do so on the basis of his own convenience or local pride. The best interests of shipper and consignee are the only valid standards for choice of routing, and this should be so, and usually is so, no matter whether the freight is paid by the American party or the foreign party to the transaction.

The main reason that, based on this standard, we must so often decide against shipping via Boston, is the shortage [fol. 4604] of other cargo at the port of Boston and the resultant relative shortage of available ocean shipping space and frequency. The influx of more, and more diversified cargoes, which is bound to result from rate parity from and to Differential Territory, will substantially alleviate this present handicap of the port of Boston.

Thus, the large number of foreign trade establishments which are physically located in New York City does not give the port of New York such a competitive advantage that, without rate preference, the other North Atlantic ports would be reduced to insignificance. These New York firms are perfectly ready and willing to ship through other ports, and they will do so whenever it is advantageous, rate-wise or service-wise, to do so, as they have been doing for years.

In many cases, it is advantageous to stay away from New York. We constantly encounter customers who want us to avoid New York, with its congestion, delays, and excessive handling of goods.

Nor is there any reason why the very large size of some of the New York firms should make competition with them impossible. There are forwarders and brokers of reasonable capacity and great efficiency at Boston, as well as at the other North Atlantic ports. Few, if any, shipments are so large or complex that these firms could not handle them effectively. Size, by itself, gives no competitive advantage in our business. The quality of the service and its cost is [fol. 4605] what counts the most, and we find that we can compete effectively and successfully with the larger firms on that basis. We are frequently able to undersell the large New York firms. In any event, if an increase in business justifies it, my firm, as well as most other similar firms, would be ready and able to expand our size to the degree necessary.

Similarly, the suggestion that the size of the large New York banks gives the port of New York an insuperable competitive edge strikes me as wholly unrealistic. Any export or import shipment so large that our Boston banks could not handle its financing, because of their "inadequate" size, is inconceivable to me. If such shipments exist at all, which I doubt, they are so rare and unusual as to be of no significance for purposes of this case. The First National Bank of Boston is among the 15 largest banks in the country with resources well in excess of one and one-half billion dollars.

In order to confirm my suspicion that similarly good banking facilities are available at Philadelphia and Baltimore, I examined the listing, in the International Bankers Directory for 1957, of the one hundred U.S. banks with the largest resources. These included four Philadelphia banks, three Boston banks and two Baltimore banks. Each one of these banks had listed resources in excess of $285 million, and two of the Philadelphia banks had resources in excess of one billion dollars.

[fol. 4606] I know that our Boston banks with foreign departments compete actively and often successfully for the business of financing foreign trade. But even the business financed through New York does not necessarily move through the port of New York. To my knowledge, banks do not try to influence the routing of shipments; it is a

matter of indifference to them. Nor is there any particular reason why shippers or consignees who finance through New York banks should, for this reason, prefer New York routings. There is no significant delay in liquidating the investment in a shipment which moves through a port other than that at which the financing bank is located. Shipping documents are usually mailed to the bank, and a letter normally takes no longer from Boston to New York City than from Broadway, New York City, to Wall Street, New York City. Even in cases where time is of such importance that, within New York, hand-delivery of documents to the bank would be resorted to, prompt payment at some other North Atlantic port or other city through a correspondent bank can easily be arranged.

Similarly, I do not think that the fact that the head offices of most steamship companies are in New York means that New York gets space preference. These companies are in business to make money, and they will make space available wherever the goods are. We have no trouble whatsoever getting shipping space assigned to Boston, when we have enough tonnage to make it profitable for the company to send a ship to Boston. It is ridiculous to sug- [fol. 4606a] gest that steamship managements would be so parochial in outlook as to want to keep their ships at the home port, even though profitable business can be had elsewhere.

The key to this whole port-competitive situation on the East Coast will be active and aggressive selling, once the rate differential has been removed. The differential now is the barbed-wire fence which keeps us from the doors of most of our potential customers, if we try to sell service through Boston. Once that fence is removed, those selling service through Boston will gain access to the customer on an equal basis with those selling service through other ports, and fair competition based on quality of service, and on cost differences which we can control, will be possible. I look forward to this situation, with confidence that it will be possible, on that basis, to sell Boston services, and I am not paralyzed by fear of New York competition. It will involve hard work and much effort, but

it can and will be done. Philadelphia and Baltimore can do it too—and will do it once they are faced with the necessity of having to do it.

[fol. 4607]

VERIFICATION

Leo Pisterino, being first duly sworn, on oath deposes and says; that he is the person who made the foregoing statement; that he has read the same and that the statements therein contained are true and correct to the best of his knowledge, information and belief.

Leo Pisterino

Subscribed in my presence, and worn to before me, by the affiant above-named, this twenty-first (21st) day of May, 1959.

Helen Ann Smith
My Commission Expires June 4, 1959.

[fol. 4608]

I.C.C. Exhibit No. 118

I & S 6615

Statement of William J. Hartney

Q. Please state your name.

A. William J. Hartney.

Q. What are your occupation and position?

A. I am a banker. I am Vice-President of The National Shawmut Bank of Boston, and am in charge of its Foreign Department.

Q. Does The National Shawmut Bank compete with New York City banks for the business of financing import and export shipments?

A. Yes, it does.

Q. Do you find that the fact that several New York banks are larger in terms of their financial resources than your bank, makes it impossible or very difficult for you to compete against them for this business?

A. No; once a bank exceeds a certain minimum size, the amount of its total resources is rarely a significant factor in foreign trade transactions. The National Shawmut Bank has a combined capital and surplus of roughly $30 million. That means we can extend up to about $3 million credit, secured or unsecured, to any one customer, and more on secured transactions where additional security is deposited with us.

[fol. 4609] When more financing is required, it is quite usual, here and elsewhere, for customers to utilize arrangements with several banks. The First National Bank of Boston, for example, can go up to about $14 million for any customer. Thus, The National Shawmut, The First National and other Boston banks, singly or in combination, can readily extend credit up to any amounts that may reasonably be required to finance foreign trade.

Qualitatively and cost-wise, the services which we offer are at least as good as those of the New York banks. The large size of some of the latter give them no competitive advantage. On the contrary, we find that, frequently, our

somewhat lesser size and less complex organization enable us to give better personal service and we are always able to process documents promptly.

Insofar as concerns the furnishing of credit information and providing similar customer services, we, as well as all other recognized foreign trade banks, are ready to match our facilities at any time against those of banks elsewhere, including the New York City banks.

We, accordingly, feel that we can and do compete successfully with the New York banks for such business.

[fol. 4610] Q. Do you try to influence in any way the choice of a port routing for shipments financed by your bank?

A. No; we do not feel that it is within our province as bankers to attempt to influence our customers in this regard. That decision is in the hands of the importer or exporter, and we are glad to finance foreign trade going through any other port.

Q. To your knowledge, do the New York banks attempt to influence the routing of shipments through New York?

A. I have never heard of it, and, to my knowledge, they do not.

Q. Does it take longer for the buyer or seller, as the case may be, to liquidate his investment in a shipment, when the shipment is routed through a different port from that at which the financing bank is located, than when the shipment moves through the port at which such bank has its principal office?

A. There is no significant time difference. Shipping documents are usually mailed to the bank. So long as the bank and the port used are not at opposite ends of the [fol. 4611] country, mailing should take about the same length of time no matter which port is used.

Q. Does The National Shawmut Bank have foreign branches?

A. No; we work through correspondent banks abroad. The only Boston bank with its own foreign branches is The First National Bank of Boston.

Q. Does the lack of foreign branches put you at a competitive disadvantage?

A. I do not believe so. I know of no difference at all in the standard of the service offered to customers.

Q. Would you say that your testimony with respect to the competitive abilities of the Boston banks would apply equally to the foreign banking services available at Philadelphia and Baltimore?

A. Yes. I certainly think that adequate, high-quality and competitive foreign banking service are available at both of these ports. In fact, four Philadelphia banks are larger than The National Shawmut Bank in total resources. The two biggest Baltimore banks, though somewhat smaller, each have total resources of around $300 million.

[fol. 4612]

VERIFICATION

William J. Hartney, being first duly sworn, on oath deposes and says; that he is the person who made the foregoing statement; that he has read the same and that the statements therein contained are true and correct to the best of his knowledge, information and belief.

William J. Hartney

Subscribed in my presence, and sworn to before me, by the affiant above-named, this 16th day of May, 1958.

Leslie H. Baker.
My Commission expires February 16, 1963

[fol. 4613]

I.C.C. Exhibit No. 120

This statement is verified. Unless written request for cross examination is received by affiant or his attorney not later than 10 days prior to the hearing at which such evidence otherwise would be offered, affiant desires that the statement be considered for incorporation in the record without his personal appearance as a witness.

Before The

INTERSTATE COMMERCE COMMISSION

I. & S. Docket No. 6615

Equalization of Rates at
North Atlantic Ports

VERIFIED STATEMENT OF R. E. PETTERSON
COMPTROLLER
NORFOLK AND WESTERN RAILWAY COMPANY

[fol. 4614] My name is R. E. Petterson. I am Comptroller of Norfolk and Western Railway Company, Roanoke, Virginia, and I have previously testified and presented exhibits in this proceeding. For the convenience of the Commission and other interested parties, I have prepared an exhibit summarizing for comparative purposes the costs of the Hampton Roads lines between representative points in differential territory and Hampton Roads and the costs of the New Haven Railroad between the same points in differential territory and the Port of Boston. All of these costs are already of record and were taken from Witness Cole's Exhibit 116 (working papers) for Boston and from my Exhibit 88 for Hampton Roads.

Column 1 of my Exhibit —— shows points common to both Witness Cole's Exhibit 116 and my Exhibit 88, R.E.P. #5 Revised, Sheet 1. Columns 2 and 3 are self-explanatory. Column 4, the Cwt. Per Car, was taken from Witness Cole's Exhibit 116 for the movements shown.

In Column 5, the Line Haul Costs for Boston were obtained from Witness Cole's Exhibit 116, Pages A-51 to A-54, inclusive, Column 12, which show Cost Per Carload. These carload costs were reduced to a cwt. cost. The Hampton Roads Costs were obtained by using the amounts as shown in my Exhibit 88, R.E.P. #1 Revised, Sheet 3, Line 29, for Pocahontas Region, and Sheet 8, Line 29, for Eastern District, Columns 3 and 4 on the respective sheets. These were items reduced to a cwt. basis and multiplied by the miles for each particular district. The miles used were taken from my Exhibit 88, R.E.P. #5 Revised, Sheet 1, Columns 5 and 6, as applicable.

In Column 6, the Inland Terminal Cost for Boston was obtained from Witness Cole's Exhibit 116, Column 14, Pages A-51 and A-52, and Column 13, Pages A-53 and A-54. The Carload Costs as shown were reduced to a cwt. basis. [fol. 4615] The Inland Terminal Costs for Hampton Roads are the Eastern Costs as shown on my Exhibit 88, R.E.P. #1 Revised, Sheet 8, Line 29, Columns 5 and 6, reduced to a cwt. basis and then divided by two (2) for the cost of one (1) terminal.

In Column 7, I have shown the Interchange Cost for Hampton Roads as reflected in my Exhibit 88, R.E.P. #1

Revised, Sheet 5, Line 3 and Sheet 10, Line 9, reduced to a cwt. basis and then divided by two (2) to produce one-half of an interchange cost. The resulting cost was then multiplied by the actual number of interchanges that occurred in the particular movement, this being the same number that was shown in my Exhibit 88, R.E.P. #5 Revised, Columns 12 and 13. I understand that the Boston Interchange Cost is included in the Line Haul.

In Column 8, Port Terminal and Pier Costs for Boston were taken from Witness Cole's Exhibit 116, Pages A-51 and A-52, Column 8, and Pages A-53 and A-54, Column 9, reduced to a cwt. basis. Hampton Roads Port Terminal and Switching Costs are those shown on my Exhibit 88, R.E.P. #2 Revised, Sheet 1, Line 11 and reduced to a cwt. basis. The Pier Cost is shown on my Exhibit 88, R.E.P. #3 Revised, Sheet 1, Line 12.

The costs as shown in Columns 5, 6 and 7 of my Exhibit —— are on an out-of-pocket basis whereas those in Column 8 are on a total cost basis.

In sum, My Exhibit —— simply summarizes evidence already of record in this proceeding for the purpose of showing in condensed form how costs between Hampton Roads and typical differential territory points compare with similar costs between Boston and those same points, based upon costs submitted for the New Haven Railroad by Witness Cole.

[fol. 4616]

Affidavit

State of Virginia)
) ss:
City of Roanoke)

R. E. Petterson, being duly sworn, deposes and says that he has prepared the foregoing statement of testimony and that the matters and things contained therein are true and correct to the best of his knowledge and belief.

Signed R. E. Petterson

Subscribed and sworn to before me, a Notary Public in and for the City of Roanoke, Virginia, this 14th day of August, 1958.

R. T. Anderson
Notary Public

My Commission expires January 6, 1962.

(SEAL)

[fol. 4617]

I. & S. Docket 6615
Exhibit ____
Witness Petterson

STATEMENT SHOWING COST OF HANDLING IMPORT AND EXPORT TRAFFIC
BETWEEN DIFFERENTIAL TERRITORY AND THE PORTS OF HAMPTON ROADS AND BOSTON*
(Cents per Cwt.)

ORIGIN OR DESTINATION (1)	ORIGIN OR DESTINATION (2)	TYPE OF CAR (3)	CWT. PER CAR (4)	LINE HAUL (5)	INLAND TERMINAL (6)	INTERCHANGE (7)	PORT TERMINAL AND PIER COST (8)	TOTAL (9)
Chicago, Ill.	Boston	Box	560	48.53	4.87	-	22.70	76.10
	Hampton Roads			29.72	5.42	4.55	23.77	63.46
Decatur, Ill.	Boston	Box	740	46.79	4.10	-	21.27	72.16
	Hampton Roads			25.92	4.40	3.56	22.86	56.74
Louisville, Ky.	Boston	Box	620	48.11	4.64	-	22.27	75.02
	Hampton Roads			17.82	5.12	-	23.50	46.44
Detroit, Mich.	Boston	Box	280	56.42	8.71	-	29.77	94.90
	Hampton Roads			37.08	10.48	-	28.29	75.85
Toledo, Ohio	Boston	Box	640	35.86	4.54	-	22.08	62.48
	Hampton Roads			23.25	4.98	1.88	23.37	53.48
St. Louis, Mo.	Boston	Box	400	73.36	6.49	-	25.67	105.52
	Hampton Roads			40.29	7.54	3.01	25.67	76.51
Cincinnati, Ohio	Boston	Box	620	42.82	4.64	-	22.27	69.73
	Hampton Roads			16.68	5.12	-	23.50	45.30
Columbus, Ohio	Boston	Box	780	33.72	3.95	-	21.01	58.68
	Hampton Roads			14.36	4.21	-	22.69	41.26

4617

* Costs for Boston are those of the New Haven Railroad shown by Witness Cole in his Exhibit 116.

ANALYSES OF CENSUS BUREAU
TABULATIONS UPON WHICH WAS
BASED EXHIBIT A-6 OF
WITNESS LAUX EXHIBIT NO. 107

1. Clearances From Baltimore - 1951
2. Clearances From New York - 1951
3. Clearances From Baltimore - 1956
4. Clearances From New York - 1956
5. "Passenger" Ship Sailings - New York - 1951
6. "Passenger" Ship Sailings - New York - 1956
7. Passenger and Cargo Capacities of Vessels Included in 5. and 6.

Alphabetical Listing of Dry Cargo Vessels
Engaged in Foreign Trade Cleared or Granted
Permit to Proceed at the Port of Baltimore (1303)

January - December 1951

1.	Total number of vessels shown in the Census Bureau's machine tabulation, excluding duplicate posting of vessel Exchequer 11/10	3,321
2.	Number of vessels under 1,000 net registered tons	46
3.	Number of vessels between 1,000 and 1,500 net registered tons . .	233
4.	Number of duplicate clearances (see attached tabulation)	95
5.	Number of combination passenger-cargo vessels (Santa Luisa) . . .	1
6.	Number of vessels in ballast departing from Baltimore only once on a particular voyage (cargo symbols 1 or 4)@	727
7.	Number of vessels with bulk cargo departing from Baltimore only once on a particular voyage (cargo symbols 2 or 5)@ . .	597
8.	Number of vessels in ballast or with bulk cargo departing from Baltimore more than once on a particular voyage (cargo symbols 1, 2, 4 or 5). Such vessels have been counted only once (see attached tabulation).@	14
9.	Number of vessels with general cargo departing from Baltimore only once on a particular voyage (cargo symbols 3 or 6)@ . .	1,761
10.	Number of vessels departing from Baltimore more than once on a particular voyage with general cargo on at least one of the departures (cargo symbols 3 or 6). Such vessels have been counted only once (see attached tabulation)	81

@Excludes data for vessels under 1,000 net registered tons.

NOTE: The above grand total of 3,321 vessels less those under 1,000 net registered tons (46), less the number of duplicate departures (81 plus 14 or 95) leaves a balance of 3,180. This figure equals the total for 6, 7, 8, 9 and 10 above.

Maryland Port Authority

August, 1958

348 [fol. 4619]

Alphabetical Listing of Dry Cargo Vessels Engaged in Foreign Trade Cleared or Granted Permit to Proceed at the Port of New York (1001)

January - December 1951

1.	Total number of vessels shown in the Census Bureau's machine tabulation	6,777
2.	Number of vessels under 1,000 net registered tons	314
3.	Number of vessels between 1,000 and 1,500 net registered tons	467
4.	Number of duplicate clearances (Item #5 plus Item #6)	1,136
5.	Number of duplicate clearances of vessels in ballast or with bulk cargo departing from New York (cargo symbols 1, 2, 4 or 5)	64
6.	Number of duplicate clearances of vessels departing from New York with general cargo (cargo symbols 3 or 6)	1,072
7.	Number of combination passenger-cargo vessels (see attached tabulation)	560
8.	Number of vessels in ballast departing from New York only once on a particular voyage (cargo symbols 1 or 4)@	419
9.	Number of vessels with bulk cargo departing from New York only once on a particular voyage (cargo symbols 2 or 5)@	88
10.	Number of vessels with general cargo departing from New York only once on a particular voyage (cargo symbols 3 or 6)@	4,809

[fol. 4620]

@Excludes data for vessels under 1,000 net registered tons.

NOTE: The above grand total of 6,777 vessels less those under 1,000 net registered tons (314), less the number of duplicate departures (64 plus 1072 or 1136) leaves a balance of 5,327. This figure is 11 more than the total for Items #8, #9 and #10 above. Time limitation did not permit a reconciliation of this small discrepancy.

Maryland Port Authority

August 1958

Alphabetical Listing of Dry Cargo Vessels Engaged in Foreign Trade Cleared or Granted Permit to Proceed at the Port of Baltimore (1303)

January - December 1956

1.	Total number of vessels shown in the Census Bureau's machine tabulation	4,451
2.	Number of vessels under 1,000 net registered tons	43
3.	Number of vessels between 1,000 and 1,500 net registered tons	380
4.	Number of duplicate clearances (see attached tabulation)	150
5.	Number of combination passenger-cargo vessels Mohamid Ali El Kebir (1), Santa Clara (8), Santa Monica (10), Santa Sofia (8)	27
6.	Number of vessels in ballast departing from Baltimore only once on a particular voyage (cargo symbols 1 or 4)@	961
7.	Number of vessels with bulk cargo departing from Baltimore only once on a particular voyage (cargo symbols 2 or 5)@	590
8.	Number of vessels in ballast or with bulk cargo departing from Baltimore more than once on a particular voyage (cargo symbols 1, 2, 4 or 5). Such vessels have been counted only once (see attached tabulation).@	1
9.	Number of vessels with general cargo departing from Baltimore only once on a particular voyage (cargo symbols 3 or 6).@	2,557
10.	Number of vessels departing from Baltimore more than once on a particular voyage with general cargo on at least one of the departures (cargo symbols 3 or 6). Such vessels have been counted only once (see attached tabulation).@	149

@Excludes data for vessels under 1,000 net registered tons.

NOTE: The above grand total of 4,451 vessels less those under 1,000 net registered tons (43), less the number of duplicate departures (1 plus 149 or 150) leaves a balance of 4,258. This figure equals the total for 6, 7, 8, 9 and 10 above.

Maryland Port Authority

August, 1958

3434 [fol. 4621]

Alphabetical Listing of Dry Cargo Vessels
Engaged in Foreign Trade Cleared or Granted
Permit to Proceed at the Port of New York (1001)

January - December 1956

1.	Total number of vessels shown in the Census Bureau's machine tabulation	7,964
2.	Number of vessels under 1,000 net registered tons	251
3.	Number of vessels between 1,000 and 1,500 net registered tons	601
4.	Number of duplicate clearances (Item #5 plus Item #6)	1,705
5.	Number of duplicate clearances of vessels in ballast or with bulk cargo departing from New York (cargo symbols 1, 2, 4 or 5)	68
6.	Number of duplicate clearances of vessels departing from New York with general cargo (cargo symbols 3 or 6)	1,637
7.	Number of combination passenger-cargo vessels (see attached tabulation)	851
8.	Number of vessels in ballast departing from New York only once on a particular voyage (cargo symbols 1 or 4)@	555
9.	Number of vessels with bulk cargo departing from New York only once on a particular voyage (cargo symbols 2 or 5)@	201
10.	Number of vessels with general cargo departing from New York only once on a particular voyage (cargo symbols 3 or 6)@	5,252

[fol. 4622]

@Excludes data for vessels under 1,000 net registered tons.

NOTE: The above grand total of 7,964 vessels less those under 1,000 net registered tons (251), less the number of duplicate departures (68 plus 1,637 or 1,705) leaves a balance of 6,008. This figure equals the total for Items #8, #9 and #10 above.

Maryland Port Authority.

August 1958

Passenger Ships Departing
From New York, 1951

Name of Ship	Number of Departures	Name of Ship	Number of Departures
America	17	Queen Mary	21
Ancon	16	Queen of Bermuda	51
Argentina	9	Rio de la Plata	7
Britannic	10	Rio Jachal	7
Caronia	10	Rio Tunuyan	3
Constitution	8	Ryndam	4
Conte Biancamano	6	Santa Barbara	8
Isle de France	16	Santa Cecilia	7
Independence	12	Santa Clara	15
Italia	11	Santa Isabel	8
Liberte	18	Santa Luisa	8
Mauretania	18	Santa Margarita	7
Media	13	Santa Maria	9
Mohamid Ali El Kebir	5	Santa Monica	15
Nassau	1	Santa Paula	23
Nieuw Amsterdam	15	Santa Rosa	23
Noordam	13	Santa Sofia	17
Ocean Monarch	25	Saturnia	10
Oslofjord	12	Stavangerfjord	10
Parthia	12	Stockholm	11
President Monroe	3	Vulcania	10
President Polk	2	Westerdam	12
Queen Elizabeth	21	Zuiderkruis	1

Total number of departures 560

Source: Based upon Census records furnished by the Port of New York

Maryland Port Authority
August 1958

3436
[fol. 4623]

Passenger Ships Departing
From New York, 1956

Name of Ship	Number of Departures	Name of Ship	Number of Departures
America	16	Ivernia	4
Ancon	17	Kungsholm	12
Andrea Doria	8	Liberte	18
Argentina	9	Maasdam	13
Ascania	3	Mauretania	19
Berlin	13	Media	12
Britannic	10	Mohamid Ali El Kebir	5
Caronia	5	Nassau	37
Castel Felice	3	New York	11
Columbia	9	Nieuw Amsterdam	14
Constitution	14	Noordam	13
Conte Biancamano	7	Ocean Monarch	38
Covadonga	12	Olympia	14
Cristobal	17	Oslofjord	10
Cristoforo Columbo	14	Parthia	11
Flandre	9	President Monroe	3
Groote Beer	5	President Polk	3
Guadalupe	12	Queen Elizabeth	22
Homeric	8	Queen Frederica	11
Independence	15	Queen Mary	22
Isle de France	16	Queen of Bermuda	46
Israel	7	Rio de la Plata	7
Italia	14	Rio Jachal	6

[fol. 4624]

Name of Ship	Number of Departures	Name of Ship	Number of Departures
Rio Tunuyan	7	Santa Paula	24
Roma	10	Santa Rosa	24
Ryndam	12	Santa Sofia	17
Santa Barbara	8	Saxonia	3
Santa Cecilia	9	Saturnia	10
Santa Clara	16	Stavangerfjord	9
Santa Isabel	8	Stockholm	9
Santa Luisa	8	United States	23
Santa Margarita	9	Vulcania	9
Santa Maria	8	Westerdam	12
Santa Monica	17	Zuiderkruis	5

Total number of departures 851

Source: Based upon Census records furnished by the Port of New York

Maryland Port Authority

August 1958

PASSENGER AND CARGO CAPACITIES

(Furnished by U. S. Department of Commerce
Maritime Administration)

Vessel	Passenger Capacity	Bale Capacity (Cu. Ft.)
America	1048	230,000
Ancon	216	365,000
Andrea Doria	1185	160,000
Argentina (Italy)	1027	102,000
Argentina (Sweden)	24	493,000
Ascania	260	249,000
Berlin	1129	224,000
Britannic	220	144,000
Caronia	935	103,000
Castel Felice	1201	77,000
Columbia	824	161,000
Constitution	985	222,000
Conte Biancamano	1568	93,000
Covadonga	353	381,000
Cristobal	216	365,000
Cristoforo Columbo	1154	157,000
Flandre	727	169,000
Groote Beer	834	24,000
Guadalupe	353	406,000
Homeric	1165	192,000
Independence	985	222,000

[fol. 4626]

Vessel	Passenger Capacity	Bale Capacity (Cu. Ft.)
Isle de France	1318	236,000
Israel	313	300,000
Italia	1336	191,000
Ivernia	943	280,000
Kungsholm	802	123,000
Liberte	1499	91,000
Maasdam	881	156,000
Mauretania	1147	522,000
Media	251	417,000
Mohamid Ali El Kebir	78	389,000
Nassau	614	151,000
New York	1421	158,000
Nieuw Amsterdam	1214	227,000
Noordam	150	463,000
Ocean Monarch	430	96,000
Olympia	1278	149,000
Oslofjord	600	210,000
Parthia	251	382,000
President Monroe	96	512,000
President Polk	96	512,000
Queen Elizabeth	2240	212,000
Queen Frederica	1176	58,000
Queen Mary	2026	153,000
Queen of Bermuda	731	152,000

3440 [fol. 4627]

Vessel	Passenger Capacity	Bale Capacity (Cu. Ft.)
Rio de la Plata	116	359,000
Rio Jachal	116	360,000
Rio Tunuyan	116	360,000
Roma	754	180,000
Ryndam	881	156,000
Santa Barbara	52	469,000
Santa Cecilia	52	469,000
Santa Clara	52	526,000
Santa Isabel	28	554,000
Santa Luisa	52	469,000
Santa Margarita	52	469,000
Santa Maria	52	469,000
Santa Monica	52	526,000
Santa Paula	211	326,000
Santa Rosa	211	326,000
Santa Sofia	52	526,000
Saxonia	929	287,000
Saturnia	1389	198,000
Stavangerfjord	670	221,000
Stockholm	550	260,000
United States	1982	158,000
Vulcania	1360	234,000
Westerdam	134	537,000
Zuiderkruis	845	453,000

[fol. 4628]

CORRECTIONS TO EXHIBIT A-2 OF WITNESS LAUX EXHIBIT NO. 107, AND OF EXHIBIT WSH-1 AND SUMMARIES THEREFROM, WITNESS HAMILL EXHIBIT NO. 70; INDICATED BY STUDY AND COMPARISON OF UNDERLYING DATA FURNISHED BY BUREAU OF CENSUS AND MARITIME ADMINISTRATION

(GENERAL CARGO VESSELS ONLY)

I.C.C. Exhibit No. 122

CORRECTIONS OF EXHIBIT A-2 OF WITNESS LAUX EXHIBIT 107,
AND OF SUMMARIES OF NEW YORK AND BALTIMORE GENERAL
CARGO SERVICE TAKEN FROM EXHIBIT WSH-1 of WITNESS HAMILL
EXHIBIT 70; INDICATED BY STUDY OF UNDERLYING DATA

AFRICAN GROVE (1) 1/
A-2: Delete 2 general cargo arrivals and 2 general cargo departures. Included in WSH, Page 6.
WSH: No change.

ANGELII (2)
A-2: No change.
WSH: Add 1 indirect arrival and 1 direct departure - Balto.
Delete 1 direct departure from New York and add 1 indirect departure from New York.

ANNA L. CONDYLIS (3)
A-2: No change.
WSH: Add 1 direct departure and delete 1 indirect departure - Balto.
Delete 1 direct departure from New York and add 1 indirect departure from New York.

BAHIA BUEN SUCESO (4)
A-2: No change.
WSH: Add 1 indirect departure - Balto.

ENDURO (5)
A-2: No change.
WSH: Add 1 direct arrival and 1 direct departure - Balto.

LES ECLAIR (6)
A-2: Conflict with Maritime records.
WSH: No change.

SANTO CERRO (7)
A-2: No change.
WSH: Add 1 direct arrival and 1 indirect departure - Balto.
Add 1 indirect arrival and 1 direct departure - New York.

[illegible] HEAD (8)
A-2: No change.
WSH: Add 1 direct arrival and 1 indirect departure - Balto.

[illegible] (9)
A-2: No change.
WSH: Add 1 direct arrival and 1 indirect departure - Balto.
Add 1 indirect arrival and 1 direct departure - New York.

WYCHWOOD (10)
A-2: No change.
WSH: Add 1 direct arrival - Balto.

[illegible] (11)
A-2: Delete 1 general cargo departure - Balto.
WSH: No change

ARCOA RUNNER (12)
A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.
Add 1 indirect arrival and 1 direct departure - New York.

1/ Numbers in parentheses () indicate order of vessels listed on the worksheets.

Note: Accompanying letter and attachment from the Calmar Line shows that this vessel was in the U. S. Intercoastal Service and that it neither loaded nor discharged cargo at the Panama Canal

[fol. 4630]

OCEAN NIMET (13)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto.
PENMAR (14)@	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
STEEL ARCHITECT (15)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto. Add 1 indirect arrival and 1 indirect departure - New York.
TALLEYRAND (16)	A-2:	Delete this entry. Included in WSH, Page 6.
	WSH:	No change.
YORKMAR (17)@	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
AFRICAN PILOT (18)	A-2:	Change word "liner" to General.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
AKAGISAN MARU (19)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
ALCOA ROAMER (20)	A-2:	Delete this entry.
	WSH:	No change as a result of 1 duplicate indirect entrance and 1 duplicate indirect clearance - Balto.
AMERICAN LEADER (21)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 direct arrival and 1 direct departure - New York.
ARKELDYK (22)	A-2:	No change.
	WSH:	Add 1 direct arrival and 1 direct departure - New York. Add 1 indirect arrival and 1 indirect departure - Balto.
ATLANTIC AIR (23)	A-2:	Conflict with Maritime records.
	WSH:	No change.
BAHIA DE NUEVITAS (24)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
BOLIVAR (25)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - New York. Add 1 indirect arrival and 1 direct departure - Balto.
CONSTANTIA (26)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.

@ See note to ALAMAR (11)

[Vol. 4651] 3444

EXCELLER (27)
A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

FLYNDERBORG (28)
A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

INNAREN (29)
A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

LANCERO (30)
A-2: Delete this entry. Included in WSH, Page 22.
WSH: No change.

MAYA (31)
A-2: No change.
WSH: Add 1 direct arrival - Balto.

MOISE BAY (32)
A-2: Delete this entry. Census records show ship departed in ballast.
WSH: No change.

MOISE BAY (33)
A-2: Delete this entry. Census records show ship departed in ballast.
WSH: No change.

PERICLES (34)
A-2: No change.
WSH: Add 1 indirect arrival - Balto.

PIONEER REEF (35)
A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

[Col. 4682]

PLATANO (36)
A-2: No change.
WSH: Add 1 direct arrival - Balto.

SANTA ANITA (37).
A-2: No change.
WSH: Add 1 indirect departure - New York.
Add 1 indirect arrival and 1 direct departure - Balto.

SPIGERBORG (38)
A-2: Change entry cargo to General in accordance with Census records.
WSH: Add 1 indirect departure - New York.
Add 1 indirect arrival and 1 direct departure - Balto.

ALCOA PILGRIM (39)
A-2: No change.
WSH: Add 1 indirect departure - Balto.
Add 1 indirect arrival and 1 direct departure - New York.

ALCOA RUNNER (40)
A-2: No change.
WSH: Add 1 indirect departure - Balto.
Add 1 indirect arrival and 1 direct departure - New York.

ALCOA RUNNER (41)
A-2: No change.
WSH: Add 1 indirect departure - Balto.
Add 1 indirect arrival and 1 direct departure - New York.

3445

CALMAR (42)@	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
CILCO LOGGER (43)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York
GREEN HARBOUR (44)	A-2:	Delete this entry; departure was bulk according to Census and Maritime records.
	WSH:	No change.
HAROLD T. ANDREWS (45)	A-2:	No change.
	WSH:	Add 1 direct departure - Balto.
MASSMAR (46)@	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
SEAMAR (47)@	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
ALCOA RUNNER (48)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
ANNISTON (49)	A-2:	Change entry cargo to ballast instead of general in accordance with Census and Maritime records.
	WSH:	No change.
ARCHON GABRIEL (50)	A-2:	Change entry cargo to ballast instead of general in accordance with Census and Maritime records.
	WSH:	No change.
ELIZA CAMPANELLA (51)	A-2:	Conflict with Maritime records.
	WSH:	No change.
EXANTHIA (52)	A-2:	Conflict with Maritime records.
	WSH:	No change.
FELTORE (53)	A-2:	Change departure cargo from general to ballast in accordance with Census and Maritime records.
	WSH:	No change.
FELTORE (54)	A-2:	Change departure cargo from general to ballast in accordance with Census and Maritime records.
	WSH:	No change.
FELTORE (55)	A-2:	Change departure cargo from general to ballast in accordance with Census and Maritime records.
	WSH:	No change.
FERNGROVE (56)	A-2:	No change.
	WSH:	Delete 1 indirect departure and add 1 direct departure - New York. Add 1 indirect arrival and 1 indirect departure - Balto.

@ See note to ALAMAR (11)

3446 [Vol. 4633]

Add 1 indirect arrival and 1 indirect departure - [illegible]

e See note to AIAMAR (11)

FLORIA (57)	A-2: No change. WSH: No change.
FLORIDA (58)	A-2: No change. WSH: Delete 1 direct arrival and 1 direct departure - New York. Add 1 direct arrival and 1 direct departure - Balto.
HELEN LYKES (59)	A-2: No change. WSH: Add 1 indirect departure - Balto.
HELIOS (60)	A-2: No change. WSH: Add 1 direct departure - Balto.
HERTA ENGELINE FRITZEN (61)	A-2: Change entrance cargo from general to ballast in accordance with Census and Maritime records. WSH: No change.
LAURA LAURO (62	A-2: Change entrance cargo from general to ballast in accordance with Census and Maritime records. WSH: No change.
NORVANA (63)	A-2: No change. WSH: Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
SANTA MONICA (64)	A-2: No change. WSH: Ship shown as Santa Maria in WSH, Page 60. No change.
TOLTEC (65)	A-2: No change. WSH: Delete 1 direct arrival and 1 direct departure - New York. Add 1 direct arrival - Balto.
ALCOA RANGER (66)	A-2: No change. WSH: Add 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
CONCORDIA CAPO (67)	A-2: No change. WSH: Add 1 indirect departure - Balto.
FLOMAR (68)e	A-2: Delete 1 general cargo departure - Balto. WSH: No change.
JOHN B. KULUKUNDIS (69)	A-2: No change. WSH: Add 1 direct departure from Balto.
MARYMAR (70)e	A-2: Delete 1 general cargo departure - Balto. WSH: No change.
PENNMAR (71)e	A-2: Delete 1 general cargo departure - Balto. WSH: No change.

e See note to AIAMAR (11)

[fol. 4634]

ORIMAR (72)@	A-2: Delete 1 general cargo departure - Balto. WSH: No change.
ALBA (73)	A-2: Change departure cargo from bulk to ballast in accordance with Census and Maritime records. WSH: Add 1 direct arrival - Balto.
ALCOA PLANTER (74)	A-2: No change. WSH: Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
ALCOA RANGER (75)	A-2: No change. WSH: Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
BINTANG (76)	A-2: No change. WSH: Add 1 indirect departure - Balto.
FERNPLANT (77)	A-2: No change. WSH: Add 1 direct arrival - Balto.
FLORIDA (78)	A-2: No change. WSH: Add 1 direct arrival and 1 indirect departure - New York. Add 1 indirect arrival and 1 indirect departure - Balto.
REXTON KENT (79)	A-2: No change. WSH: Add 1 indirect arrival and 1 indirect departure - Balto.
SAGGAT (80)	A-2: Conflict between Census and Maritime records. WSH: No change.
ST. NICHOLAS (81)	A-2: Change departure cargo from general to ballast in accordance with Maritime records. WSH: No change.
VERAGUA (82)	A-2: No change. WSH: Add 1 direct arrival - Balto.
FORTMAR (83)@	A-2: Delete 1 general cargo departure - Balto. WSH: No change.
SEMAR (84)@	A-2: Delete 1 general cargo departure - Balto. WSH: No change.
CALMAR (85)@	A-2: Delete 1 general cargo departure - Balto. WSH: No change.
AFRICAN PATRIOT (86)	A-2: No change. WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

@ - See note to CALMAR (11)

3448 [fol. 4635]

AFRICAN SUN (87)	A-2:	No change.
	WSH:	No change as a result of 1 duplicate entrance and 1 duplicate clearance - Balto.
ALCOA RANGER (88)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
ALCOA RANGER (89)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
AMERICAN MILLER (90)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
AMERICAN REPORTER (91)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
AMERICAN SHIPPER (92)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
ANDRIA (93)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto
AZTEC (94)	A-2:	Conflict with Maritime records.
	WSH:	No change.
BALI (95)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto
BIRGITTE TORM (96)	A-2:	No change.
	WSH:	No change as result of 1 duplicate arrival and 1 duplicate departure - Balto.
CIUDAD DE BARQUISIMETO (97)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
CIUDAD DE MARACAIBO (98)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
CONCORDIA SKY (99)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
CITY OF ROCHESTER (100)	A-2:	No change.
	WSH:	Add 1 indirect clearance for Baltimore.

[Fol. 4636]

EXCHEQUER (101) — A-2: Change clearance date from 11/21 to 11/25 per Census records.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

EXFORD (102) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

EXPORTER (103) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

FERNGROVE (104) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

FRAMEGGEN (105) — A-2: No change.
WSH: Add 1 indirect arrival and 1 direct departure - Balto.

GERDA DAN (106) — A-2: Delete entry as this item is shown in WSH, Page 99. The date 11/29 in WSH corresponds to Census and Maritime records.
WSH: No change.

GUNVOR BROVIG (107) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

KHEDIVE ISMAIL (108) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

LEOPOLD L. D. (109) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

LEOVILLE (110) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

MAJORKA (111) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

MORMACDALE (112) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

MORMACOWL (113) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

NABOB (114) — A-2: No change.
WSH: Add 1 indirect arrival and 1 indirect departure - Balto.

NORMUNDO (115) — A-2: No change.
WSH: Add 1 indirect arrival and 1 direct departure - Balto.

OROTAVA (116) — A-2: Conflict with Maritime records.
WSH: No change.

PETER STAR (117) — A-2: Delete entry. Census and Maritime show arrival in bulk and departure in ballast.
WSH: No change.

3450 [Fol. 4637]

RIO ARAZA (118)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
RONDA (119)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
SANTOS (120)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
SARAH BOWATER (121)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
SIRIUS (122)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
ST LO (123)	A-2:	Delete entry as item is shown in WSH, Page 95.
	WSH:	No change.
TELAMON (124)	A-2:	No change.
	WSH:	Add 1 direct arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
THOR ODLAND (125)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
TIDAHOLM (126)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
ULUA (127)	A-2:	No change.
	WSH:	Add 1 direct arrival - New York Add 1 indirect arrival - Balto. Delete 1 direct departure - Balto.
VICTORIA MARU (128)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
YAMASATO MARU (129)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
ALCOA PARTNER (130)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto.
ALCOA RUNNER (131)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.
ANGELITA (132)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto. Add 1 indirect arrival and 1 direct departure - New York.

[fol. 4638]

3451

FLOMAR (133)●	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
MARYMAR (134)●	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
MASSMAR (135)●	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
PENMAR (136)●	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
TEXMAR (137)●	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
ARCTURUS (138)	A-2:	Conflict with Maritime records.
	WSH:	No change.
ATENAS (139)	A-2:	No change.
	WSH:	Add 1 direct arrival - Balto.
CIUDAD DE IBAQUE (140)	A-2:	No change.
	WSH:	Add 1 indirect entrance and 1 indirect departure - Balto.
SINU (141)	A-2:	Conflict with Maritime records.
	WSH:	No change.
STAHOLM (142)	A-2:	No change.
	WSH:	Add 1 indirect arrival and 1 indirect departure - Balto.
		Add 1 indirect arrival and 1 direct departure - New York.
ALAMAR (143)●	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
ALCOA RANGER (144)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto.
ALCOA RUNNER (145)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto.
		Add 1 indirect arrival and 1 direct departure - New York.
EDGAR F. LUCKENBACH (146)	A-2:	No change.
	WSH:	Add 1 indirect departure - Balto.
		Add 1 indirect arrival and 1 indirect departure - New York.
PORTMAR (147)●	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.
STEEL SCIENTIST (148)	A-2:	Change departure to arrival.
	WSH:	No change.
YORKMAR (149)●	A-2:	Delete 1 general cargo departure - Balto.
	WSH:	No change.

● See note to ALAMAR (11)

[fol. 463]

[fol. 4640]

TABULATION OF NET ADDITIONS AND DELETIONS TO COMPARATIVE SUMMARIES OF NEW YORK AND BALTIMORE GENERAL CARGO SERVICE (BASED ON EXHIBIT WSH-1, WITNESS HAMILL EXHIBIT NO. 70) INDICATED BY STUDY OF MARITIME AND CENSUS DATA

Name of Ship	Additions for New York				Deletions for New York				Additions for Baltimore			
	Entrances		Clearances		Entrances		Clearances		Entrances		Clearances	
	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect
Angelita (2)‡	-	-	-	1	-	-	1	-	-	1	1	-
Anna L. Condylis (3)#	-	-	-	1	-	-	1	-	-	-	1	-
Bahia Buen Suceso (4)	-	-	-	-	-	-	-	-	-	-	-	1
Enduro (5)	-	-	-	-	-	-	-	-	1	-	1	-
Santo Cerro (7)	-	1	1	-	-	-	-	-	1	-	-	1
Torr Head (8)	-	-	-	-	-	-	-	-	1	-	-	1
Veragua (9)	-	1	1	-	-	-	-	-	1	-	-	1
Wychwood (10)	-	-	-	-	-	-	-	-	1	-	-	-
Alcoa Runner (12)	-	1	1	-	-	-	-	-	-	1	-	1
Ocean Nimet (13)	-	-	-	-	-	-	-	-	-	-	-	1
Steel Architect (15)	-	1	-	1	-	-	-	-	-	-	-	1
African Pilot (18)	-	-	-	-	-	-	-	-	-	1	-	1
Akagisan Maru (19)	-	-	-	-	-	-	-	-	-	1	-	1
American Leader (21)	1	-	1	-	-	-	-	-	-	1	-	1
Arkeldyk (22)	1	-	1	-	-	-	-	-	-	1	-	1
Bahia de Nuevitas (24)	-	1	1	-	-	-	-	-	-	1	-	1

4640

PAGE 2

Name of Ship	Additions for New York				Deletions for New York				Additions for Baltimore			
	Entrances		Clearances		Entrances		Clearances		Entrances		Clearances	
	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect
Bolivar (25)	-	1	-	1	-	-	-	-	-	1	1	-
Constantia (26)	-	1	1	-	-	-	-	-	-	1	-	1
Exceller (27)	-	-	-	-	-	-	-	-	-	1	-	1
Flynderborg (28)	-	-	-	-	-	-	-	-	-	1	-	1
Innaren (29)	-	-	-	-	-	-	-	-	-	1	-	1
Maya (31)	-	-	-	-	-	-	-	-	1	-	-	-
Pericles (34)	-	-	-	-	-	-	-	-	-	1	-	-
Pioneer Reef (35)	-	-	-	-	-	-	-	-	-	1	-	1
Platano (36)	-	-	-	-	-	-	-	-	1	-	-	-
Santa Anita (37)	-	-	-	1	-	-	-	-	-	1	1	-
Spigerborg (38)	-	-	-	1	-	-	-	-	-	1	1	-
Alcoa Pilgrim (39)	-	1	1	-	-	-	-	-	-	-	-	1
Alcoa Runner (40)	-	1	1	-	-	-	-	-	-	-	-	1
Alcoa Runner (41)	-	1	1	-	-	-	-	-	-	-	-	1
Cilco Logger (43)	-	1	1	-	-	-	-	-	-	-	-	1
Harold T. Andrews (45)	-	-	-	-	-	-	-	-	-	-	1	-
Alcoa Runner (48)	-	1	1	-	-	-	-	-	-	1	-	1
Ferngrove (56)	-	-	1	-	-	-	-	1	-	1	-	1

4641

[fol. 4642]

PAGE 3

Name of Ship	Additions for New York				Deletions for New York				Additions for Baltimore			
	Entrances		Clearances		Entrances		Clearances		Entrances		Clearances	
	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect
Florida (58)	-	-	-	-	1	-	1	-	1	-	1	-
Helen Lykes (59)	-	-	-	-	-	-	-	-	-	-	-	1
Helios (60)	-	-	-	-	-	-	-	-	-	-	1	-
Norvana (63)	-	1	1	-	-	-	-	-	-	1	-	1
Toltec (65)	-	-	-	-	1	-	1	-	1	-	-	-
Alcoa Ranger (66)	-	1	1	-	-	-	-	-	-	-	-	1
Concordia Capo (67)	-	-	-	-	-	-	-	-	-	-	-	1
John B. Kulukundis (69)	-	-	-	-	-	-	-	-	-	-	1	-
Alba (73)	-	-	-	-	-	-	-	-	1	-	-	-
Alcoa Planter (74)	-	1	1	-	-	-	-	-	-	1	-	1
Alcoa Ranger (75)	-	1	1	-	-	-	-	-	-	1	-	1
Bintang (76)	-	-	-	-	-	-	-	-	-	-	-	1
Fernplant (77)	-	-	-	-	-	-	-	-	1	-	-	-
Florida (78)	1	-	-	1	-	-	-	-	-	1	-	1
Rexton Kent (79)	-	-	-	-	-	-	-	-	-	1	-	1
Veragua (82)	-	-	-	-	-	-	-	-	-	-	1	-
*African Patriot (86)	-	-	-	-	-	-	-	-	-	1	-	1
Alcoa Ranger (88)	-	1	1	-	-	-	-	-	-	1	-	1

4642

[fol. 4643]

PAGE 4

Name of Ship	Additions for New York				Deletions for New York				Additions for Baltimore			
	Entrances		Clearances		Entrances		Clearances		Entrances		Clearances	
	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect
Alcoa Ranger (89)	-	1	1	-	-	-	-	-	-	1	-	1
*American Miller (90)	-	-	-	-	-	-	-	-	-	1	-	1
American Reporter (91)	-	1	1	-	-	-	-	-	-	1	-	1
*American Shipper (92)	-	-	-	-	-	-	-	-	-	1	-	1
*Andria (93)	-	-	-	-	-	-	-	-	-	1	-	1
*Bali (95)	-	-	-	-	-	-	-	-	-	1	-	1
*Ciudad de Barquisimeto (97)	-	1	1	-	-	-	-	-	-	-	-	1
*Ciudad de Maracaibo (98)	-	1	1	-	-	-	-	-	-	-	-	1
*Concordia Sky (99)	-	-	-	-	-	-	-	-	-	1	-	1
*City of Rochester (100)	-	-	-	-	-	-	-	-	-	-	-	1
*Exchequer (101)	-	-	-	-	-	-	-	-	-	1	-	1
*Exford (102)	-	-	-	-	-	-	-	-	-	1	-	1
*Exporter (103)	-	-	-	-	-	-	-	-	-	1	-	1
*Ferngrove (104)	-	-	-	-	-	-	-	-	-	1	-	1
Frameggen (105)	-	-	-	-	-	-	-	-	-	1	1	-
*Gunvor Brovig (107)	-	-	-	-	-	-	-	-	-	1	-	1
*Khedive Ismail (108)	-	-	-	-	-	-	-	-	-	1	-	1
*Leopold L. D. (109)	-	-	-	-	-	-	-	-	-	1	-	1

4643

Name of Ship	Additions for New York				Deletions for New York				Additions for Baltimore			
	Entrances		Clearances		Entrances		Clearances		Entrances		Clearances	
	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect
*Leoville (110)	-	-	-	-	-	-	-	-	-	1	-	1
*Majorka (111)	-	-	-	-	-	-	-	-	-	1	-	1
*Mormacdale (112)	-	-	-	-	-	-	-	-	-	1	-	1
*Mormacowl (113)	-	-	-	-	-	-	-	-	-	1	-	1
*Nabob (114)	-	-	-	-	-	-	-	-	-	1	-	1
*Normundo (115)	-	-	-	-	-	-	-	-	-	1	1	-
*Rio Araza (118)	-	-	-	-	-	-	-	-	-	1	-	1
*Ronda (119)	-	-	-	-	-	-	-	-	-	1	-	1
*Santos (120)	-	-	-	-	-	-	-	-	-	1	-	1
*Sarah Bowater (121)	-	-	-	-	-	-	-	-	-	1	-	1
*Sirius (122)	-	-	-	-	-	-	-	-	-	1	-	1
*Telamon (124)	-	1	1	-	-	-	-	-	1	-	-	1
Thor Odland (125)	-	1	1	-	-	-	-	-	-	1	-	1
*Tidaholm (126)	-	-	-	-	-	-	-	-	-	1	-	1
Ulua (127)#	1	-	-	-	-	-	-	-	-	1	-	-
*Victoria Maru (128)	-	-	-	-	-	-	-	-	-	1	-	1
*Yamasato Maru (129)	-	-	-	-	-	-	-	-	-	1	-	1
*Alcoa Partner (130)	-	-	-	-	-	-	-	-	-	-	-	1

4644

PAGE 6

Name of Ship	Additions for New York				Deletions for New York				Additions for Baltimore			
	Entrances		Clearances		Entrances		Clearances		Entrances		Clearances	
	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect	Direct	Indirect
*Alcoa Runner (131)	-	1	1	-	-	-	-	-	-	-	-	1
*Angelita (132)	-	1	1	-	-	-	-	-	-	-	-	1
Atenas (139)	-	-	-	-	-	-	-	-	1	-	-	-
Ciudad de Ibague (140)	-	-	-	-	-	-	-	-	-	1	-	1
Staholm (142)	-	1	1	-	-	-	-	-	-	1	-	1
Alcoa Ranger (144)	-	-	-	-	-	-	-	-	-	-	-	1
Alcoa Runner (145)	-	1	1	-	-	-	-	-	-	-	-	1
Edgar F. Luckenbach (146)	-	1	-	1	-	-	-	-	-	-	-	1
Total	4	28	28	8	2	-	4	1	13	57	14	74

1 Numbers in parentheses ( ) indicate order of vessels listed on the worksheets.

In addition to the other items shown for this vessel, there should be a deletion of 1 indirect clearance for Baltimore.

* Maritime records show ship's visit to Baltimore by port code number only.

¢ In addition to the other items shown for this vessel, there should be a deletion of 1 direct clearance for Baltimore.

4645

Maryland Port Authority

August, 1958

[fol. 4646]

I.C.C. Exhibit No. 123

I&S Docket 6615

EQUALIZATION OF RATES AT
NORTH ATLANTIC PORTS

This statement is verified. Unless written request for cross-examination is received by affiant or his attorney (Richard R. Bongartz, Transportation Center, Philadelphia 4, Pennsylvania) not later than 10 days prior to the hearing at which such evidence otherwise would be offered, affiant desires that the statement be considered for incorporation in the record without his personal appearance as a witness.

[fol. 4647]

Before The

INTERSTATE COMMERCE COMMISSION

INVESTIGATION AND SUSPENSION
DOCKET NO. 6615

EQUALIZATION OF RATES AT
NORTH ATLANTIC PORTS

Rebuttal Testimony of F. H. Clark

My name is F. H. Clark, and I have testified previously in this proceeding. My earlier testimony was marked Exhibit No. 54 for identification.

In Mr. W. F. French's Verified Statement, Exhibit No. 113, he sets forth ten (10) alleged reasons why the costs in Exhibit 50A are overstated. Witness Talbot has dealt with most of the alleged overstatements of cost. My comments will be directed to Witness French's alleged unadjusted overstatements No. 1 and 2, and also to his adjustment No. 4.

French's Unadjusted Overstatement No. 1
(Exhibit 113, p. 12)

Witness French discovered what he considered to be an inconsistency between the figures for September, 1956 extracted from the figures underlying the 1956 Budget Bureau Vessel Operation Report of The Pennsylvania Railroad Company which were supplied to him upon request, and the cars shown in the cost study moving to or from West 12th Street. The cost study showed 4,662 cars moving to and from the Pennsylvania Railroad's West 12th [fol. 4648] Street Station, New York (Piers 49-50) during September, 1956. The September figures from the 1956 Vessel Operation Report showed 5,488 cars transported to and from the same facility. Mr. French calls attention to this apparent discrepancy and concludes if the 5,488 cars had been used in the cost study, it would have resulted in a lower unit cost. The fact is, that the 4,662 cars used in the cost study were the correct number. The difference between that number and the number of cars extracted from the material underlying the Vessel Operation Report is accounted for as follows.

The 5,488 cars in the Vessel Operation Report include 474 cars known as "return cars." They are shown separately on the Vessel Operation Report and appear very clearly as such on the copies supplied to Mr. French. "Return cars" are cars loaded and/or empty that remain on the carfloats for two or more round trips to and from the pier station. This condition is brought about by the fact that some of the cars on the float are loaded and have to be moved to meet a connection while other cars on the same float are not yet ready to move. In such a case the float is moved across the river and the cars ready for movement are removed while the other cars remain on the float to be returned for completion of the loading or unloading as the case may be. When first placed on the carfloats and when removed therefrom they were counted among the loaded or empty cars as the case may be for purposes of both the cost study and the Vessel Operation Report. The "return" figure maintained on the Vessel Operation Report is purely statistical in nature. The 474 does not represent 474 ship-

ments nor 474 different cars. Since the cars included within [fol. 4649] the 474 "returns" have been properly included in the cars counted for the cost study, it would be improper to include them a second or third time as Mr. French appears to suggest.

The remaining difference between the Vessel Operation Report figures and the 4,662 cars used in the cost study is due to an error in the preparation of the September, 1956 Vessel Report. Instead of 497 loaded cars eastbound the figure on the report should have been 417. Westbound there were 1,637 loads instead of 1,898 as now appears on the report. Similarly, the empty cars eastbound should be 1,914 instead of 2,010 and westbound the empties should appear as 694 in place of 609.

With the adjustments here indicated, the "total" cars appearing on the Vessel Operation Report should be 2,568 eastbound and 2,568 westbound or a grand total of 5,136. For purposes of the cost analysis, the 474 "return" cars must be subtracted from the 5,136 leaving 4,662 which was the number of cars included in the cost study.

French's Unadjusted Overstatement No. 2
(Exhibit 113, pp. 12-14)

In Mr. French's alleged Unadjusted Overstatement No. 2 he asserts that the import-export cars handled through the yards supporting New York Harbor during the yard-study week were much less than the average September week and were less than 10% of the whole month. Mr. French's conclusion in this regard is based upon a complete misunderstanding of the figures which he had available. The 304 import-export cars included in the switching study for the week of September 25 to October 1, 1956 included only cars *from and to Differential Territory.* The [fol. 4650] figure of 3,135 import-export cars for the month of September which Mr. French uses for comparison are cars from and to *all points.* By dividing the 304 cars by 7 Mr. French concludes that only 43 cars per day moved through the yards during the yard-study week whereas 105 was the daily average for the entire month. When these cars per day are calculated on a proper basis the result is

exactly the reverse from that which Mr. French reaches. During the switching study week a total of 887 export-import cars from and to all points were handled through New York. This is an average of 127 cars per day for the study period. When this figure is compared with the 105 cars per day, which is the September average of all import-export cars produced by Mr. French, it is clear that the study week is actually 121% (based on daily relationship) of the average week in September, 1956.

While it happens that the study week had a high volume of import-export traffic as compared with the rest of the month of September, it would not have made any significant difference if the import-export cars handled in the study had been less than the monthly average. Since the switching study necessarily included all traffic, and since the data was reduced to average minutes per car for the various elements of yard service, the total number of cars studied is the significant figure, not the number of import-export or domestic cars.

French's Adjustment No. 4

Mr. Talbot has dealt at some length with the adjustments which Mr. French has made in his restatement of the cost [fol. 4651] study at New York Harbor. I want only to comment briefly about certain aspects of Mr. French's Adjustment No. 4. At page 6 of his statement Mr. French says:

> "... In so far as repairs is concerned, my treatment of 10% of these expenses being variable with traffic volume is predicated on the fact that little increase in the repair expense will be due to changes in the volume of traffic handled on existing equipment. In other words, if five (5) cars on the average are being handled on the present fleet of carfloats it is obvious that if seven (7), eight (8) or even ten (10) cars are handled on these carfloats there would be only relatively little increase in the maintenance cost. Likewise additional tons could be handled up to lighter capacity without seriously raising maintenance cost."

The experience of the Pennsylvania will show that Mr. French's hypotheses with respect to both carfloats and lighters just do not reflect the facts. The carfloats used by the Pennsylvania in pier station operations are generally what are known as 10-car floats (somewhat less if there are a number of 50′ or longer cars on the float). The Pennsylvania has 54 floats holding 10 cars each, 6 floats holding 14 cars and 6 holding 20 cars. If the 5,136 cars handled to and from West 12th Street Station (and in this computation it is proper to include the 474 "return" cars) are divided by the number of carfloat trips taken from the Vessel Operation Report, namely 550, it will be found that the average number of cars per float was 9.3 cars. A similar calculation for the entire year 1956 discloses an average of 9.4. Obviously, the floats are presently operated at or near their capacity and, therefore, it cannot reasonably be contended that additional traffic could be handled on these floats. Similar statistics for the other PRR piers are shown below:

[fol. 4652]

Pier	Average Number Cars Per Car Float	
	Sept. 1956	Year 1956
77-78	10.3	9.9
79	10.0	9.7
29	9.7	9.7
28 (Perishable)	7.8	8.9

Source: Vessel Operation Reports for PRR Year 1956.

As a matter of operating practice, the floats are loaded to or near their capacity. This is done with loaded cars if there are sufficient loaded cars available, or by placing enough empty cars on the float to fill out the carfloat capacity. The purpose of adding the empties is to insure an ample supply of cars for outbound loading and thus avoid additional tug and carfloat services for empties during the day.

The above tabulation shows that the average loading to and from Pier 28 is slightly less than the average to the other piers. This is the pier at which perishables are de-

livered. The car float service must be rapid and continuous. Cars by commodities according to their market hours must be floated regardless of number immediately available. The cars must be unloaded promptly upon arrival or shortly thereafter. The conditions at this pier differ from the other piers in general and from the import-export traffic in particular.

It is an inescapable conclusion that increased business would result in an increase in the number of carfloats employed, and hence an increase in maintenance cost of 100% for each unit added.

[fol. 4653] The use of carfloats directly to shipside does not represent a large portion of import-export traffic but to the extent this method is employed it is not within the carrier's control to increase the number of cars per float. The ship permit governs the number of cars which a railroad can deliver to the ship at any given time. In other words the ship's wishes determine the volume of traffic and the time of delivery. As the volume of business increases the number of ships and the number of locations to be served likewise increase. As in the case of the station floats, the number of floating equipment units must be increased since the loading per unit cannot be increased. The result must necessarily be increased maintenance cost.

A similar situation prevails with reference to loading of lighters. Mr. French assumes that increased business will result in increased lighter loads which will result in no appreciable increase in maintenance cost. The experience of the Pennsylvania disproves Mr. French's assumption.

Over the years every rail line in New York Harbor has sought to increase its average loading per lighter with very little success. The failure has not been because the lighters are incapable of holding additional tonnage, but because the inherent problems of water-borne transportation in New York Harbor do not permit increasing efficiency with increasing volume. Some of these problems are as follows:

1. The ship permit system, whereby the freight desired and the times of delivery are specified by the ship, [fol. 4654] leaves little discretion with the railroad as to the lading it can place in any given lighter movement.

2. The privilege of split deliveries, whereby a given shipment may be ordered split between several piers, places practical limitations upon the consolidation of shipments in a single lighter.

3. Deliveries in New York Harbor must be made to scattered points.

At page 12 of my original Verified Statement (Exhibit No. 54) the average tons per lighter was set forth for the week of September 17-22, 1956. Below is set forth the number of PRR lighters in service and the average tons per lighter from 1951 to 1956 using a comparable week in September for each year.

Year	Lighters	Tons	Avg. Tons Per Lighter
Sept. 17-22, 1951	327	18621	56.9
Sept. 15-20, 1952	259	14421	55.7
Sept. 14-19, 1953	258	13850	53.7
Sept. 20-25, 1954	276	14735	53.4
Sept. 19-24, 1955	281	15026	53.5
Sept. 17-22, 1956	296	17001	57.4
Total	1697	93654	55.2

These figures show an inability to obtain any substantial increase in lighter loading because of increased traffic. They also show that if the tonnage increases, so do the number of lighters, with resulting increase in lighter maintenance cost.

[fol. 4655]

VERIFICATION

COMMONWEALTH OF PENNSYLVANIA :
: ss.
COUNTY OF PHILADELPHIA :

F. H. Clark, being duly sworn, deposes and says that the foregoing statement is true and correct to the best of his information, knowledge and belief.

Signed: F. H. CLARK

Subscribed in my presence and sworn to before me the affiant above named, this 12th day of August, 1958.

WM. G. SHERWIN
Notary Public

Philadelphia, Phila. Co., Pa.
Commission Expires
June 5, 1959

STATEMENT OF IMPORT TRAFFIC HANDLED BY BALTIMORE & OHIO R.R., C.R.R. OF N.J., AND PENNSYLVANIA R.R., FROM NEW YORK, N.Y., DURING YEAR 1956.

[fol. 4656]

I.C.C. Exhibit No. 124

		TO DIFFERENTIAL TERRITORY		TO WESTERN TRUNK LINE TERRITORY		TO PORT AREA		TO TRUNK LINE AND NEW ENGLAND TERRITORY (1)		TO OTHER TERRITORIES		TOTAL (1)	
		CARS	TONS	CARS	CARS	CARS	TONS	CARS	CARS	CARS	CARS	CARS	CARS
Page 92													
GROUP I - Products of Agriculture (1-199)													
No.	Description												
33	Cotton in Bales												
	Reads	3	35			4	85	3	75	11	237	21	432
	Should read	3	55			4	85	3	75	11	237	21	452
	TOTAL GROUP I												
	Reads	3,661	85,573	60	1,346	654	14,662	1,805	43,559	921	24,260	7,101	169,400
	Should Read	3,661	85,583	60	1,346	654	14,662	1,805	43,559	921	24,260	7,101	169,410
GROUP II - Animals and Products (201-299)													
No.	Description												
239	Hides, Skins and Pelts NOS												
	Reads	21	534	2	66	23	470					46	1,070
	Should read	21	534	2	66			23	470			46	1,070
	TOTAL GROUP II												
	Reads	185	4,154	4	104	70	1,339	299	5,920	51	1,126	609	12,643
	Should read	185	4,154	4	104	47	869	322	6,390	51	1,126	609	12,643
Page 93													
GROUP V - Manufactures and Miscellaneous (501-799)													
No.	Description												
523	Rubber, Crude, Natural, Synthetic												
	Reads	1,912	62,473	281	9,007	2	53	1,019	53,548	87	2,709	3,301	127,790
	Should read	1,912	62,473	281	9,007	2	53	1,019	33,548	87	2,709	3,301	107,790
539	Fertilizers, NOS												
	Reads	60	1,085	1	26	4	11	96	1,694	3	55	164	2,871
	Should read	60	1,085	1	26	4	111	96	1,694	3	55	164	2,971
Page 94													
541	Insecticide, Fungicides, NOS												
	Reads	5	108					1	21	1	37	7	166
	Should read	5	108					23	591	2	57	30	756
633	Cement, Nat-Portland												
	Reads			1	33							1	33
	Should read					1	33					1	33

CORRECTIONS IN EXHIBIT NO. MLH-2 WITNESS MOLLMAN IN I&S DOCKET 6615

STATEMENT OF IMPORT TRAFFIC HANDLED BY BALTIMORE & OHIO R.R., C.R.R. OF N.J., AND PENNSYLVANIA R.R., FROM NEW YORK, N.Y., DURING YEAR 1956.

		TO DIFFERENTIAL TERRITORY		TO WESTERN TRUNK LINE TERRITORY		TO PORT AREA		TO TRUNK LINE AND NEW ENGLAND TERRITORY (1)		OTHER TERRITORIES		TOTAL (1)	
		CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS
Page 95													
GROUP V - Manufactures and Miscellaneous (501-799)													
No.	Description												
661	Wrapping Paper												
	Reads					1	26	8	286			9	312
	Should read	1	26					8	286			9	312
669	Paperboard, Fibreboard and Pulpboard												
	Reads	7	109					6	143			13	252
	Should read	7	109					4	95	2	48	13	252
Page 96													
783	Feed, Animal and Poultry, NOS												
	Reads	9	237	1	27			8	243	1	30	19	537
	Should read	9	237	1	27			8	242	1	30	19	536
	TOTAL GROUP V												
	Reads	4,468	118,993	544	13,996	881	17,571	6,364	204,582	1,189	24,791	13,446	379,933
	Should read	4,469	119,019	543	13,963	881	17,678	6,384	185,103	1,192	24,859	13,469	360,622
	TOTAL GROUP I TO VI												
	Reads	8,896	228,154	679	17,132	2,651	89,127	10,677	378,283	2,440	57,447	25,343	770,143
	Should read	8,897	228,190	678	17,099	2,628	88,764	10,720	359,274	2,443	57,515	25,366	750,842

4657

CORRECTIONS IN EXHIBIT NO. MLH-2 WITNESS MOLLMAN IN I&S DOCKET 6615

STATEMENT OF EXPORT TRAFFIC HANDLED BY BALTIMORE & OHIO R.R., C.R.R. OF N.J., AND PENNSYLVANIA R.R., TO NEW YORK, N.Y., DURING YEAR 1956.

[fol. 4658]

		FROM DIFFERENTIAL TERRITORY		FROM WESTERN TRUNK LINE TERRITORY		FROM PORT AREA		FROM TRUNK LINE AND NEW ENGLAND TERRITORY (1)		OTHER TERRITORIES		TOTAL (1)	
		CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS
Page 27													
GROUP II - Animal and Products (201-299)													
No.	Description												
219	Packing House Products, Edible, NOS												
	Reads	197	4,566	215	5,003	12	253	2	40	2	42	428	9,904
	Should read	186	4,203	211	5,019	12	253	2	40	2	42	413	9,557
	TOTAL GROUP II												
	Reads	1,367	33,639	984	21,192	183	4,065	623	13,367	233	4,857	3,390	77,120
	Should read	1,356	33,276	980	21,208	183	4,065	623	13,367	233	4,857	3,375	76,773
Page 27													
GROUP III - Products of Mines (301-399) (Excluding Coal, Coke Direct Product of Coal and Iron Ore)													
No.	Description												
311	Aluminum Ore and Concentrates												
	Reads	1	34	2	92								
	Should read	1	34	2	92								
	TOTAL GROUP III												
	Reads	62	1,907	42	1,341	1	24	103	4,039	31	912	239	8,223
	Should read	62	1,907	42	1,341	1	24	103	4,039	30	891	238	8,202
Page 28													
GROUP V - Manufactures and Miscellaneous (501-799)													
No.	Description												
505	Lubrication - Oil-Grease												
	Reads	937	21,766			11	237	403	9,971	5	128	1,356	32,103
	Should read	937	21,766			11	237	403	9,971	5	128	1,356	32,102
599	Gases, other than Petroleum, NOS												
	Reads	10	120					2	52			12	172
	Should Read	9	105					2	52			11	157
Page 30													
627	Tires and Tubes, Rubber												
	Reads	553	8,669	122	1,652	282	3,682	200	2,885	262	4,687	1,419	21,575
	Should read	568	9,084	124	1,690	282	3,682	198	2,955	262	4,687	1,434	22,098

11-58

CORRECTIONS IN EXHIBIT NO. MLH-2 WITNESS MOLLMAN IN I&S DOCKET 6615

STATEMENT OF EXPORT TRAFFIC HANDLED BY BALTIMORE & OHIO R.R., C.R.R. OF N.J., AND PENNSYLVANIA R.R., TO NEW YORK, N.Y., DURING YEAR 1956.

		FROM DIFFERENTIAL TERRITORY		FROM WESTERN TRUNK LINE TERRITORY		FROM PORT AREA		FROM TRUNK LINE AND NEW ENGLAND TERRITORY (1)		OTHER TERRITORIES		TOTAL (1)	
		CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS	CARS	TONS
Page 30													
GROUP V - Manufactures and Miscellaneous (501-799)													
No.	Description												
639	Brick, NOS, and Building Tile												
	Reads	19	464			2	98	1	13	1	34	23	609
	Should read	20	514			2	98	1	13	1	34	24	659
661	Wrapping Paper												
	Reads	1	20					14	318	2	36	18	374
	Should read	1	20					14	297	2	36	17	353
Page 31													
711	Stoves, Ranges and Parts												
	Reads	172	2,026	2	25			31	247	48	513	253	2,811
	Should read	172	2,026	2	25			21	247	48	513	243	2,811
703	Woodenware												
	Reads												
	Should read									3	67	3	67
763	Food Prod. NOS, unfrozen												
	Reads	349	8,887	211	5,746	268	5,463	507	16,386	154	4,681	1,489	41,163
	Should read	349	8,887	201	5,746	268	5,463	507	16,386	154	4,681	1,479	41,163
Page 32													
779	Containers, Metal												
	Reads	63	1,011			16	163	54	540	1	8	134	1,722
	Should read	63	1,011			16	163	54	631	1	8	134	1,813
797	Waste Materials, NOS												
	Reads	51	1,539	2	86	31	837	21	457	31	616	136	3,535
	Should read	42	1,079	2	86	31	837	23	544	32	649	130	3,195
	TOTAL GROUP V												
	Reads	21,585	593,132	820	18,067	3,103	110,476	12,867	392,136	2,293	42,812	40,668	1,156,623
	Should read	21,591	593,122	812	18,105	3,103	110,476	12,857	392,363	2,297	42,912	40,660	1,156,978
	TOTAL GROUP I TO VI												
	Reads	26,777	744,814	2,052	47,742	3,309	115,018	16,272	535,757	4,916	105,170	53,326	1,548,501
	Should read	26,772	744,441	2,040	47,796	3,309	115,018	16,262	535,984	4,919	105,249	53,302	1,548,488

[fol. 4660]

I.C.C. Exhibit No. 125

Statement of
E. M. Talbott for Hearing
in I. & S. Docket No. 6615
on September 16, 1958.

My name is E. M. Talbott, Assistant Comptroller of The Baltimore and Ohio Railroad Company with headquarters at Baltimore, Maryland. I have been a prior witness in this proceeding.

In the presentation of their cost evidence in this case, the Baltimore & Ohio, Canton, Pennsylvania, Reading and Western Maryland, protesting railroads, have followed the plan of having one spokesman for their composite cost showing at New York, Philadelphia and Baltimore, with the understanding that cost representatives of each of the lines whose individual costs comprise the total shown for each port would be available for examination so far as their particular studies are concerned. These individual port studies include:

New York	—	B&O-CNJ
		PRR
Philadelphia	—	B&O
		PRR
		Reading
Baltimore	—	B&O
		Canton
		PRR
		Western Maryland

Separate cost exhibits for Hampton Roads ports were submitted by the C. & O. and N. & W.

Until the present time, Mr. J. L. Heywood, Assistant Comptroller of the Pennsylvania, has been the spokesman [fol. 4661] witness referred to above. However, since the last hearing, Mr. Heywood has been reassigned by his com-

pany to other duties. For the purpose of submitting the present rebuttal evidence, I shall be the principal cost witness for our side. I have been a member of the cost committee for the protesting lines mentioned above since the start of this litigation and participated in the preparation of the Exhibits introduced by Mr. Heywood. Since this rebuttal evidence involves costs of B&O-CNJ and PRR serving the Port of New York, I should say that representatives of the PRR are in attendance at this hearing and are prepared to answer any questions which involve the PRR part of this combined showing.

The purpose of my present testimony and attached exhibits is to deal with and answer certain testimony of Witness W. F. French as submitted on behalf of respondents in Exhibits 113 and 115 at the hearing in this case which began June 16, 1958. For this purpose, I shall follow in this statement the same subject numbering as employed in the statement of Witness French (Exhibit 113).

Witness French sets forth eight (8) different adjustments which he says should be made in Exhibit 50-A and the cost exhibits which accompanied it, as introduced through Mr. Heywood, and he asserts that these 8 adjustments are in fact reflected in the cost figures included in the two exhibits (WFF-1 and WFF-2) which accompany his statement, Exhibit 113. In addition to these eight (8) adjustments, Witness French lists ten (10) other alleged reasons why the costs in Mr. Heywood's Exhibit 50-A are over-
[fol. 4662] stated and which "would have been included in [Witness French's] restatement * * * had sufficient information been available," etc. (See p. 11 of Exhibit 113).

Each of these 8 adjustments and 10 alleged overstatements will be dealt with separately under the sub-headings which follow. At this point I might anticipate certain conclusions in my testimony by saying that we accept as correct certain of the adjustments listed in Witness French's testimony and we believe that he is right on a few of the overstatements which he alleges. In my accompanying Exhibits —— (EMT-1; EMT-2), which follow the same format as Exhibit 50-A (JLH-5; JLH-6) of Mr. Heywood, the cost figures have been recomputed in the light of

Witness French's testimony and reflect his adjustments and alleged overstatements with which we agree. Other adjustments of Witness French we reject and as will appear more fully in the discussion of the separate items which follow, we take strong exception to certain of the overstatements in our figures which he claims. Further, my cost exhibits contain adjustments in respect to percentages of variability of different expense items which are required by the record in this proceeding.

I want to repeat that the cost figures appearing in my accompanying Exhibits —— (EMT-1; EMT-2) cover (with certain exceptions noted hereinafter at pages 28-29 of this statement) the same export and import commodity movements at the Port of New York as covered in Exhibit 50-A by Mr. Heywood (JLH-5 and JLH-6) and reflect the adjustments mentioned. These exhibits should be considered as [fol. 4663] substituted for the previous out-of-pocket cost exhibits for New York (Exhibit 50-A, JLH-5; JLH-6) introduced by protestants which I represent.

Witness French's Adjustment No. 1.

This adjustment for duplication of marine expenses in the line-haul costs in Exhibit 50-A is set forth in work sheets which Witness French obtained from the Protestants and his adoption of the same is correct. The figures in my Exhibits —— (EMT-1; EMT-2) include this adjustment.

Witness French's Adjustment No. 2

This adjustment eliminates the same duplication as it appears in the inland terminal costs in Exhibit 50-A, and the same comment is made as under Adjustment No. 1. The figures in my Exhibits —— (EMT-1; EMT-2) include this adjustment.

Witness French's Adjustment No. 3

In this adjustment Witness French has eliminated carload platform expense stating as the reason that this expense is incurred at the ports and is already included in the special terminal cost studies. It is true that the major por-

tion of this expense is incurred at the ports, but it is also incurred at inland stations where the carriers load and unload forwarder freight at a published charge per ton. If the expense is eliminated at inland terminals the offsetting revenues should be eliminated also, and apparently Witness French agrees (Tr. at 1925).

[fol. 4664] We are not able to trace, however, the miscellaneous revenues that arise from the performance of this service at inland terminals.

The cost figures in my accompanying Exhibits —— (EMT-1; EMT-2) include this adjustment as made by Witness French. But it will be recognized that our acceptance of this adjustment results in an understatement of terminal costs for inland points. This is because the cost figures, while not including any expense for the performance of these services, continue to reflect a deduction for the revenues collected in their performance.

Witness French's Adjustment No. 4

Adjustment No. 4 of Witness French is a substitution (so far as the special terminal cost studies at New York are concerned) of the same percentages of variability as used by the Commission's cost section in Docket 28300 for the overall percentage of 80 used by Mr. Heywood in Exhibit 50-A. According to Witness French, the percents of variability which he has substituted produce, when applied to the individual accounts, "an overall out-of-pocket operating expense ratio of 58% and an overall out-of-pocket return on investment ratio of 67%." (Ex. 113, p. 7).

It does not seem necessary to discuss at length the percents of variability adopted by Witness French. They were used in 1939 by the Commission's cost section, and so far as I have been able to determine have not been used since by that section.

[fol. 4665] In order that their origin and application by the Commission's cost section may be fully understood, I am appending hereto as Exhibit —— (EMT-3) pertinent extracts from Senate Document 63 (78th Congress; 1st Sess) entitled "Rail Freight Service Costs in The Various Rate Territories of the United States—Letter from the

Chairman, Interstate Commerce Commission, etc.," and also extracts from A.R.E.A. Manual, 1929, entitled "Economics of Railway Operation—A Formula or Method of Calculating the Cost of Moving Freight Traffic."

The different percents of variability used by Witness French appear in Appendix E to Senate Document 63, and by consulting the footnote references therein, the origin of the particular percent can be traced. Some of the percents rest upon undisclosed studies of the Commission's cost section, while others refer to "the best information developed" for a test period of 1915, 1916, 1917, as collected by a special committee of the American Railway Engineering Association. The latter includes the 10% for Account 323, Floating Equipment Repairs, which Witness French adopts for use in the present case which comes over 40 years later. (See Appendix E to Senate Document 63 as included in Exhibit —— (EMT-3) and also the extract from the American Railway Engineering Association, 1929, included in the same Exhibit (EMT-3) at pages 1407-8.

Certain of the percents used by Witness French are not supported by later studies of the cost section which are [fol. 4666] described in Senate Document 63 itself. For instance, for Account 408, Operating Floating Equipment, an important account in Witness French's restatement, a 50% variability is used in Exhibit 113, but at page 53 of Senate Document 63 (Exhibit ——) (EMT-3) it appears that a later 6-year study by the ICC's cost section during the period 1935-41 showed a much higher degree of variability for the same account in the United States (91%) and in the East (80%).

As stated previously, I cannot find that, since its exhibits in Docket 28300 in 1939, the Commission's cost section has used or relied upon percents of variability by individual expense accounts. On the contrary, since its cost studies submitted in 1946-8 in the Small Shipments Cases, Dockets 29555 and 29556, the cost section has employed an overall percent of variability for all operating expenses, rents, and taxes, and for some years at least this percentage has been 80. The reasons and justification for this approach are clearly set forth in Statement 4-54 as prepared by the Cost Finding Section, dated November 1954 and entitled "Ex-

planation of Rail Cost Finding Procedures and Principles Relating to the Use of Costs."

In our Exhibit 50-A and accompanying cost exhibits (JLH-5, JLH-6) an overall percent of variability of 80 is used for all operating expenses, rents and taxes, and this is in accord with what I understand to be the present practice of the cost section. However, since Witness French has [fol. 4667] challenged our use of an overall percent of variability of 80% as inapplicable to what he describes as the "highly specialized operations" at New York (Exhibit 113, at pp. 4, 5), I have re-examined the application of this percentage to the special terminal costs at New York. As a result of this re-examination and further study, I now believe that the use of 80% as applicable to all of the terminal costs at New York produces a substantial understatement of the true variable costs at that port. I also believe that certain of these costs are in the category of solely related expenses, and for that additional reason should be included at 100%.

In my Exhibits —— (EMT-1; EMT-2), I have employed the following percents:

Operating Expenses, Rents and Taxes

Marine—including trucking in lieu of lighterage, and lighterage pier operation	100%
All other (including New Jersey yards and Manhattan stations)	80%

Return on Investment

100% of all equipment, including marine, in accordance with Form A at 4% after income taxes.

50% of all fixed property in accordance with Form A at 4% after income taxes (with the exception of lighterage piers.)

100% of the investment in lighterage piers at 4% after income taxes.

In the costs in my Exhibits —— (EMT-1; EMT-2), in other words, there are included the regular Form A percentages, with two exceptions: (1) I use 100% instead of [fol. 4668] 80% for marine operating expense accounts, including the operation of lighterage piers on the New Jersey shore and (2) a return on 100% instead of 50% of the investment in lighterage piers.

These exceptions are more than justified for two reasons: The first reason is the high degree of variability with traffic of the marine accounts, based on recent studies. The second reason is found in the fact that these marine expenses are in the nature of solely related expenses and incurred principally because of the requirements of export-import traffic at New York.

I shall discuss each of these reasons separately as follows:

1) *The variability of marine expenses with traffic.*

Witness French agrees that in the long term the investment in floating equipment is 100% variable with traffic, but he testified that repairs to such equipment are only 10% variable with changes in traffic volume. He testified (Exhibit 113, p. 6):

> Insofar as repairs is concerned, my treatment of 10% of these expenses as being variable with changes in traffic volume is predicated on the fact that little increase in the repair expense will be due to changes in the volume of traffic handled on existing equipment. In other words, if five (5) cars on the average are being handled on the present fleet of car floats it is obvious that if seven (7), eight (8), or even ten (10) cars are handled on these car floats there would be only relatively little increase in the maintenance costs. Likewise additional tons could be handled up to lighter capacity without seriously raising maintenance costs. On the other hand, treatment of floating equipment investment as being 100% variable is on the assumption that substantial increases in traffic would occasion the addition of more floating units in the long term.

[fol. 4669] The cornerstone of Witness French's testimony on this subject is his assumption that increased export-import traffic at New York would enable increased utilization of marine equipment.

Included with this statement are copies of verified statements submitted by, and cross-examination of, the following operating officials in Ex Parte 212, a pending proceeding before this Commission, which I now offer as Exhibit —— (EMT-4):

Verified Statement of Mr. Walter H. Harris, Lighterage Superintendent of the Marine Department of The New York Central Railroad Company

Cross Examination of Mr. Walter H. Harris, Lighterage Superintendent of the Marine Department of The New York Central Railroad Company

Verified Statement of Mr. E. J. Burke, Terminal and Lighterage Agent of The Delaware, Lackawanna, and Western Railroad

Cross Examination of Mr. E. J. Burke, Terminal and Lighterage Agent of The Delaware, Lackawanna, and Western Railroad

Verified Statement of Mr. Oscar A. Frauson, Superintendent of Lighterage and Stations, New York Harbor, for Erie Railroad Company

Verified Statement of Mr. Peter J. Ellis, Manager of Lighterage and Marine Service for the Lehigh Valley Railroad Company

As shown by this evidence of officials of Respondent carriers, lighterage (as distinguished from carfloat) service at New York exists principally to serve the requirements of export-import traffic, and these requirements are so inflexible and demanding as to preclude increased loading even if the traffic increases. One of the reasons for this is that steamship operators, in order to promote efficient [fol. 4670] ship loading, maintain "permit" systems under which they call upon the railroad to deliver particular traffic

—which means particular cars—in the order and at the time which they may require.

That the over-riding requirements in the railroad handling of export-import traffic in floating equipment by their very nature, preclude increased utilization of such equipment is also shown by certain tests conducted by the B&O and CNJ.

In my next Exhibit —— (EMT-5) are set forth for the indicated periods of different traffic levels the number of lighters handled per tow, and it will be noted that this relationship has remained practically constant.

In my next Exhibit —— (EMT-6) are set forth for each of the indicated periods the average load at New York per lighter (in tons) and per carfloat (in cars).

On this same subject Witness F. H. Clark will testify as to the performance of the Pennsylvania Railroad.

I come now to the second reason for including 100% of the marine expenses described above.

2) *The marine expenses are solely related expenses.*

Aside from the high degree of variability of the marine expenses, it is my opinion that 100% of these expenses should be taken into account because they are in the nature of solely related expenses. This means that, irrespective of the variability of these expenses they are chargeable 100% to the export-import traffic at New York on a pro-rata basis. Any study of the out-of-pocket costs for a particular traffic should include the constant expenses for plant, [fol. 4671] facilities, and operations which are solely related to that traffic.

This principle of cost-finding is recognized in Senate Document 63. See in this connection, the language on pages 50, 51 of Senate Document 63, and also in footnote 93 on page 76 of this same document (Exhibit ——) (EMT-3). The same method is also recognized in the American Railway Engineering Association Manual, 1929, used in Senate Document 63 as a source for certain percents of variability which in turn were relied upon by Witness French. See Table 3-C at pages 1409-10, 1414, 1417, 1418 of this Manual included as Appendix F in Exhibit —— (EMT-3).

The lighterage services at New York exist primarily for export-import traffic. At page W-138 of the cross-examination of Witness Walter H. Harris, Lighterage Superintendent of the Marine Department of The New York Central Railroad Company in Ex Parte 212 (See my Exhibit ——) (EMT-4), the following question and answer appear:

Q. Do you have any ideas as to the relative proportion of lighterage (for domestic as compared with waterborne freight?

A. Speaking for the New York Central with whom I am connected, the preponderance very much so is export-import-coastal-intercoastal. I would say not more than ten per cent, if that much was so-called domestic lighterage.

It follows that the constant expenses assignable to the lighterage service are chargeable to New York traffic and export-import traffic should absorb its prorata portion of such constant expenses. In other words, the share of the constant expenses for the lighterage services which are [fol. 4672] devoted to and required for export-import traffic obviously constitute a valid and direct claim upon the revenues from that traffic. This export-import traffic should properly bear its prorata portion of the entire lighterage expense.

Witness French's Adjustment No. 5.

As stated by Witness French, this adjustment is correct but in incorporating it in the figures shown in my accompanying Exhibits —— (EMT-1; EMT-2), I have also included the trucking cost portion of the trucking in lieu of lighterage costs for the Pennsylvania which were inadvertently left out of Exhibit 50-A and not included by Witness French.

Witness French's Adjustment No. 6.

In computing the marine costs associated with the movement of box cars and open top cars to and from Jersey City and Greenville, Witness French obtains lower costs by

pricing these two terminals separately on the basis of the tonnage associated with each rather than combining the costs in the manner followed by the Pennsylvania in Exhibit 50-A.

The reason Witness French gets lower costs under his method is that there is a clerical error in Exhibit 50-A with reference to the percentage of service minutes of marine equipment at Jersey City. This error was called to the attention of Respondents in a letter addressed to their Counsel dated April 28, 1958, to which was attached a statement (which later became Exhibit 119) showing the correct figures, but apparently the letter and statement [fol. 4673] were never called to the attention of Witness French (Tr. 2022-4).

In the costs set forth in my accompanying Exhibits —— (EMT-1; EMT-2), I continue to use the same method as used in Exhibit 50-A in this connection, with the corrections contained in Exhibit 119. Even if Witness French's method were substituted, the end result would be practically the same.

Witness French's Adjustment No. 7

In this adjustment Witness French, in part, computed an index factor for fuel and another index factor for materials and supplies on a basis which "approximates the adjustment procedure used by the Cost Section in connection with adjusting Rail Line Form A." (See page 9 of Exhibit 113).

Subsequent to the introduction of Exhibit 50-A (JLH-5 and JLH-6), I.C.C. Statement No. 2-58, "Rail Carload Cost Scales by Territories as of Jan. 1, 1958" prepared by the Cost Finding Section of the Bureau of Accounts, Cost Finding and Valuation, Interstate Commerce Commission, was released. Computation of the Index of Total Railway Operating Expenses, Rents and Taxes (excluding Federal Income Taxes) as of January 1, 1958 for Class I Railways, by Districts and Regions (1956-100) on page 82 shows an index factor of 109.1 for the Eastern District which I feel is appropriate for the adjustment of the average New York port costs and has been used in my Exhibits —— (EMT-1 and EMT-2).

Witness French's Adjustment No. 8

In Exhibit 50-A a return of 6% on depreciated invest-
[fol. 4674] ment is used, and Witness French's restated figures in his Exhibit 113 substitute 4%.

We firmly believe that any fair estimate of railroad costs should include a minimum return of 6%. While the railroads as a whole or in the Eastern District are not now earning such a return and have not done so for many years, that fact does not mean that a 6% return is improper for use in a cost study.

Nevertheless, and without prejudice to our basic position in favor of a 6% return, the cost figures in my accompanying Exhibits —— (EMT-1) (EMT-2) reflect a 4% return. In the case of the special terminal costs at New York, the substitution of this 4% rate is made after an allowance for income taxes. This is because in Exhibit 50-A there was no provision for federal income taxes in the special terminal costs at New York.

This concludes my testimony in relation to the eight (8) adjustments which Witness French included in his restated figures.

I pass now to the ten (10) overstatements alleged by Witness French and for which he made no adjustment, and they will be considered separately as follows:

Witness French's Unadjusted Overstatement No. 1.

This will be answered in the separate statement of Witness F. H. Clark, filed at this time.

Witness French's Unadjusted Overstatement No. 2

This will also be answered in the separate statement of Witness F. H. Clark, filed at this time.

[fol. 4675]

Witness French's Unadjusted Overstatement No. 3.

Wide disparities between the tonnages shown in the traffic studies of the Protestant carriers and the tonnages used in our cost studies are claimed by Witness French, particularly with regard to the B. & O.

The substance of Witness French's contention here is that the unit costs of handling import-export traffic at New York shown by protestants are "greatly inflated" because they are based on what are said to be "subnormal" tonnages moving during the month of September 1956. My review of the facts indicates that the volume of import-export traffic moving through the Port of New York via the B&O and CNJ during the month of September 1956 was sufficiently lower than the monthly average movement of such traffic for the year 1956 to warrant some adjustment in order to reflect the monthly average volume in terms of unit costs. The adjustments required to produce this result, however, are by no means as great as Mr. French infers would be necessary. The adjustments and the basis for them are explained in succeeding paragraphs, and they are reflected in the costs upon which my Exhibits —— (EMT-1; EMT-2) are based.

In support of his contentions, Witness French states that for the month of September 1956, only 11,647 tons of B&O traffic were included in the cost study whereas the monthly average B&O tonnage of import-export traffic for the year 1956, as computed from protestants' traffic study [fol. 4676] was 26,500 tons (R. 1548). Witness French's analysis of the total B&O traffic included in the cost study is incorrect. The 11,647 tons he mentions include only the B&O traffic lightered during the month. (B&O-CNJ working papers p. 38). My next Exhibit —— (EMT-7) which I now offer shows that 20,255 tons of B&O traffic are covered by the cost study.

The foregoing tonnages are stated only to correct an error in Witness French's analysis of B&O traffic included in the cost study. B&O traffic volume alone is not meaningful for the use Witness French seeks to make of it. As I previously testified, the B&O and CNJ marine operations at New York and the lighterage pier operations at Jersey City are conducted under a "pooling of expense" arrangement between the two roads. The unit costs of handling either road's traffic over the Jersey City lighterage piers and in marine service are exactly the same, and the effect of traffic volume on these unit costs, to the extent there is

any effect, can only be measured by considering the combined traffic volume of the two roads.

My next Exhibit —— (EMT-8) which I now offer is a comparison of the import-export traffic for September 1956 of the B&O-CNJ at New York covered by the cost study with the monthly average volume in 1956 for the two roads. The comparison indicates that the import-export traffic volume for the B&O-CNJ for September 1956 was below the monthly average for the year 1956 by approximately 3400 tons. This exhibit relates the total B&O-CNJ import-export traffic at New York as shown by the traffic study with that [fol. 4677] covered in the cost study and puts the "subnormal" traffic volume contention of Witness French in proper perspective. Further analysis is necessary to compute the adjustments necessary to relate the costs developed in the study for September 1956, to the monthly average traffic volume for the year 1956.

Since the cost of the component elements of service which comprise the complete terminal service at New York were necessarily computed separately, the extent of any adjustment required to relate the unit costs to monthly average traffic volume must also be computed separately.

I have determined that a reduction of 5.81% in certain costs of the joint B&O-CNJ marine operation will properly reflect monthly average traffic volume in the unit costs attributable to that phase of the terminal operation at New York. The adjustment has been applied only to those costs assigned to the marine operation which, although being solely related, may not vary on a month to month basis with the fluctuations in traffic, i.e., marine managers office expense; maintenance and depreciation of lighters and tugs (portion of tug expenses assigned to the lighterage operation); insurance, taxes, and return. The details of the adjustment are shown on pages 10 to 13 of my working papers supporting these adjustments.

The basis for the computation of the foregoing adjustment percent is shown on my next Exhibit —— (EMT-9) appended. There, I have compared the total tons lightered [fol. 4678] by the joint B&O-CNJ marine operation for the month of September 1956 (56,404 tons), with the monthly average volume for the year 1956 handled in such service

(59,884 tons). The September 1956 volume was 5.81% less than the 1956 monthly average volume.

Similarly, I have determined that a reduction of 11.20% in certain costs attributable to lighterage pier and lighterage yard operations will properly reflect monthly average traffic volume in the unit costs computed for September 1956. Here, too, the adjustment has been applied only to those costs assigned to lighterage pier and lighterage yard operations, while being solely related, may not vary on a month to month basis with the fluctuations in traffic volume, i.e., maintenance, depreciation, taxes and return applicable to the lighterage piers; taxes and return applicable to the lighterage yard track and facilities; billing expense; and lighterage bureau office expense. The details of the adjustment are shown on pages 10 to 13 of the working papers supporting the adjustments. My next Exhibit —— (EMT-10) shows the basis for the computation of the 11.20%. There, I have compared the total traffic handled to and from the lighterage piers by the B&O-CNJ marine service, by trucking in lieu of lighterage, and by contract steam lighter for the month of September 1956 (40,411 tons) with the 1956 monthly average volume (45,510 tons). The volume for September 1956 was 11.20% less than the 1956 monthly average volume. This comparison was used rather than a comparison of tons handled over the pier because the latter data for the year 1956 is not readily available. The results produced by either method of comparison would [fol. 4679] be approximately the same since every ton handled over the lighterage piers must either move to or from the piers by one of the three methods enumerated. The difference of 1,054 tons between the 40,411 tons "from or to the lighterage piers" for September 1956 shown in Exhibit —— (EMT-10) and the 41,465 tons shown on pages 10 to 13 of my working papers supporting the adjustments as the tons handled over the lighterage piers in September 1956 represents traffic which received pier handling in September but which did not physically move on or off the piers during that month.

In my opinion the costs for the other service components included in the total unit terminal costs at New York for the B&O and CNJ for September 1956 are representative

of an average month. The basis for this opinion is stated in my prior testimony, i.e., yard switching (Tr. 1532-1533); floating operation (Tr. 1540) and New York pier station costs (Tr. 1543).

Witness French also contends that the export scrap iron and import ores handled by the CNJ during September 1956 should have been included in the cost study.

The intent of the study is to show the terminal costs at New York applicable to the predominant operation—the normal operation—in use there, i.e., in marine service by lighter, or by trucking in lieu of lighterage. There can be no doubt that this is the normal method of operation at the port of New York, considering the relative volume of traffic, classes or kinds of traffic, and the operations of the Respondent railroads, as well as the Protestant railroads. [fol. 4680] The import ores and export scrap iron were moved over the CNJ's Dock 7 by direct transfer between ship and car. Since the period of the study the movement of rail scrap iron over Dock 7 has largely ceased. The exporter has changed its location in the harbor to the Lehigh Valley's facilities at Claremont, N.J., where it has leased property and where the scrap iron is brought to shipside, in large part at least, by barge and by truck.

Admittedly, the direct transfer operation is less costly than that requiring the use of lighters or trucks. However, the direct transfer method is little used at the port of New York, and where used by either the Respondent or Protestant railroads is limited to a few bulk commodities, predominantly import ores. Most of the Respondent railroads do not handle any traffic by the direct transfer method. In such circumstances, it would be improper to average the cost of lightered freight and of direct transfer freight to arrive at terminal costs at New York to be used in testing the compensatory nature of the proposed rates. Freight which is and must be lightered at New York should be assessed the full terminal cost for the service it requires and the lighterage method is the method used for almost all commodities passing through the port of New York.

Lest there be any misunderstanding, none of the costs, investment or handling, incurred in moving scrap iron and ores over Dock 7 and through its direct supporting yard

is included in the cost study. However, the cars moving to [fol. 4681] or from Dock 7 were included in the divisor used to compute the switching minutes per car in the classification yard.

The foregoing reasoning also applies to the traffic moving by direct transfer at Port Newark shown in my Exhibit —— (EMT-8).

The traffic shown in my Exhibit —— (EMT-8) moving through Earle and Carteret, N.J., was included in the traffic study because in effect these points are "sub-ports" to the port of New York which traditionally have taken the New York rates, and therefore are likely to be affected by approval of the rates proposed by respondents. However, the costs of handling traffic at these "sub-ports" have no proper place in the determination of whether rates at the port of New York which include lighterage service are compensatory.

In his discussion of this subject (Unadjusted Overstatement No. 3) Witness French makes no reference to the Pennsylvania Railroad but, as I have said, deals exclusively with the situation of the B&O-CNJ. Nevertheless the Pennsylvania Railroad made a study of its situation and determined that its September 1956 import and export tonnage requiring marine movement or trucking in lieu of lighterage at New York included in the cost study was only 4.3% less than the 1956 monthly average for the same categories of traffic during the year 1956. This is shown by Exhibit —— (EMT-11) attached. In these circumstances it is felt no adjustment in the Pennsylvania Railroad costs is required.

[fol. 4682]

Witness French's Unadjusted Overstatement No. 4

Witness French here claims that the special terminal costs of the Pennsylvania and Baltimore & Ohio-Jersey Central at New York are not representative of the costs of the Respondent at New York because the Protestants (1) handle only about "one third" of the total export-import traffic at New York and (2) showed no costs for the traffic which is loaded direct from car to ship or unloaded direct from ship to car on the New Jersey shore.

At New York export-import traffic is handled in one of four ways:

1. Lighterage service
2. Carfloat service
3. Trucking in lieu of lighterage
4. Directly between car and ship

Exhibit 50-A includes special terminal costs at New York which are averaged for each of the different methods of handling *except Number 4*. In other words, we showed no terminal costs for that relatively small part of New York's export-import traffic which is loaded or unloaded directly between car and ship.

On the contrary, we directed our cost showing to what is indisputably the predominant method of handling export-import traffic at New York, and certainly a showing with respect to one-third of the traffic is representative. There is no suggestion that, in the rendering of this water service, there is any difference in unit costs between Pro- [fol. 4683] testants and Respondents or any reason why such differences should exist. All of the New York lines, both Protestants and Respondents, as shown by the record in this proceeding, provide the same character of water service; own, operate and maintain the same types of equipment and facilities; pay the same wage rates; apply the same depreciation rates; pay the same character of taxes, etc. By the very nature of what Witness French correctly describes as these "highly specialized operations" there is no room for significant variations in unit costs.

In the case of the Protestants, the high special terminal costs at New York would produce substantial losses in the handling of export-import traffic under the suspended reduced rates. This is shown in my Exhibits —— (EMT-1; EMT-2). In fact, Protestants' losses are heavy under the present rates to and from New York. That such losses on the part of Protestants are representative of losses incurred by the principal Respondent, New York Central Railroad Company, in the rendering of the same type of service is indicated in a memorandum which its President

Perlman addressed to the Mayor of New York under date of July 2, 1958. This memorandum, copies of which were publicly distributed to the press, is reproduced as Exhibit —— (EMT-12). The pertinent portion reads:

> The freight services provided by the Central to industry within the City of New York include the only direct service by rail, as well as a lighterage service which enhances New York harbor. (Incidentally, as you know, both of these operate at substantial losses; in 1957 the loss on our freight service to Manhattan Island was $10,350,000.)

[fol. 4684] It will be noted that the losses referred to by Mr. Perlman occurred under the present basis of rates—not the lower suspended rates. While these losses apparently take into account both domestic and export-import traffic at the Port of New York, the testimony of Witness Walter H. Harris, the Lighterage Superintendent of the New York Central's Marine Department, which is included in my Exhibit —— (EMT-4), gives the reasons why the export-import traffic is much more expenses than domestic traffic at New York.

Witness French's Unadjusted Overstatement No. 5.

In this part of his testimony Witness French suggests that $33.85 per loaded car, including $18 per loaded car for real estate taxes, is too much for the CNJ lighterage yard at Jersey City because the yard is either too large or the traffic too small, or the yard is used for ground storage (for which Witness French cannot find the revenue credits).

Page 6 of the original working papers indicates a credit of $2,824 for Jersey City—month of September 1956, for storage. This figure, which includes the ground storage revenue, was properly reflected in the costs shown in Exhibit 50-A. A further study of the Jersey City storage credits has been made which developed that the lighterage yard is now being used more extensively for storage purposes than in 1956. During the 12-month period ending June 1958 the storage credits including $181 received under a lease arrangement amounted to an average of $12,489 per month, or $9,665 more than the credit included in the

[fol. 4685] original study. The costs reported in Exhibit —— (EMT 1; EMT-2) have been revised to reflect the additional credit of $9,665 per month as calculated above, also $594 for lighter demurrage referred to at p. —— of transcript. The additional credit amounts to $.25 per ton for the traffic handled via the lighterage piers.

In the foregoing discussion under Witness French's Unadjusted Overstatement No. 3, I described the adjustments reflected in the costs in my Exhibits —— (EMT-1; EMT-2) which were made because of the fact that during the cost study period B&O-CNJ traffic was below average. The effect of that adjustment has been to reduce the per loaded car cost $3.54 for box and refrigerator cars and $3.53 for open-top cars, before payroll taxes, as detailed on page 11 of working papers. Page 1 of the working papers shows the per car cost reflecting all adjustments. No further adjustment would be proper; the lighterage yard is not regarded as too large by the CNJ. This is significant since that carrier has not hesitated to abandon to the local authorities water-front property which could be dispensed with and has done so in a number of instances.

Witness French's Unadjusted Overstatement No. 6.

Icing costs, amounting to 10¢ per car, included in Exhibit 50-A with the PRR special terminal costs at New York, have been excluded from the costs in my Exhibits —— (EMT-1; EMT-2). The fact remains however that certain fruits and vegetables require refrigeration at this point.

[fol. 4686]

Witness French's Unadjusted Overstatement No. 7.

Here Witness French refers to "the omission" from the B&O-CNJ study of 14,288 tons of export scrap iron and 13,743 tons of import ore.

I have previously made clear that our study of special terminal costs at New York deals with export-import traffic receiving water service at New York in the form of (1) lighterage, (2) carfloatage, or (3) trucking in lieu of lighterage and does not include the costs for such bulk traffic as is handled directly between car and ship such as export scrap iron and import ores.

The scope of our cost study in relation to all export-import rail traffic at New York is indicated in my testimony which concerned Witness French's Unadjusted Overstatement No. 4.

As stated above, the export scrap iron movement shown for the CNJ in September 1956 has disappeared. All of it originated at short-haul points and its place is now taken by scrap originating within the harbor for which no rail haul is required. The imported ores are short-haul traffic also.

We did not include in our cost study traffic handled directly between ship and car at New York because:

1) It was a small proportion of the entire traffic.

2) It has been said by the New York lines that the handling of bulk traffic in volume at that port would require the erection and operation of new unloading facilities, at an investment of many millions, and any [fol. 4687] costs would therefore be wholly speculative.

3) If the costs for such bulk traffic as is now handled directly between car and ship were low, it could be assumed that the Respondents, having the burden of proof as to the reduced New York rates, would submit such costs in evidence.

Witness French's Unadjusted Overstatement No. 8.

The commodity movements to which the costs in Exhibit 50-A were applied were selected to give a representative cross section of export-import traffic. They were not weighted however in accordance with total volume. That is, if 6 movements of export corn were shown and 4 movements of export wheat, that did not mean that the total movements of these commodities were in the ratio of 6 to 4. On the contrary, it meant that to be representative of export corn 6 origins should be selected while 4 origins would be representative for export wheat.

Failure to understand this point underlies Witness French's first complaint.

Witness French's second complaint under this heading is satisfied when the costs are applied to export-import

traffic which moved through New York, and in my Exhibits —— (EMT-1; EMT-2) I have limited the cost application to commodities which moved through that port in a volume of 1,000 or more tons. Other commodities included in Exhibit 50-A where the 1,000 ton minimum was met only by movements through either Baltimore or Philadelphia have not been included in my Exhibits —— (EMT-1; [fol. 4688] EMT-2).

The only exceptions to including all commodities through New York in a volume of 1,000 tons or greater were the following 2 import commodities and 2 export commodities where there were no movements via the PRR or B&O-CNJ through New York, and thus we were unable to select representative origins and destinations and obtain average loadings. Such movements as took place of these four commodities via the Port of New York took place over the Respondent lines and not over Protestants' lines. The four commodities are:

Import, Group 69—Fruits, fresh, N.O.S. not frozen
Group 519—Oils, N.O.S.

Export, Group 401—Logs, Butts and Bolts.
Group 539—Fertilizers, N. O. S.

One other export commodity included in Exhibit 50-A but excluded from my Exhibit —— (EMT-2) is ammunition. Inquiry develops that this entire movement, while on New York rates, takes place through U.S. army terminal facilities at Earle, N.J.

It is significant here to note that if the cost-revenue relationships shown in my accompanying Exhibits —— (EMT-1; EMT-2) are applied to the total New York traffic under the same assumptions as in Witness Keefe's Exhibit 108, the costs bear substantially the same relation to revenues as is the case when the costs are compared only with the revenues in my Exhibits —— (EMT-1; EMT-2).

In other words, and following the same method employed in Witness French's statement (Exhibit 113 at page 10), if [fol. 4689] the revenues and costs in my Exhibits —— (EMT-1; EMT-2) are added up, the totals are:

	Total Freight Revenues	Total Out-of-Pocket Cost	Ratio of Cost to Revenues
Import	$ 80,299.00	$ 89,652.28	111.6%
Export	$166,441.26	$181,257.98	108.9%

However, if total freight revenues for the import and export traffic through New York are projected in the same manner as in Witness Keefe's Exhibit 108, and to these revenues are applied the same cost relationships as in Exhibits —— (EMT-1; EMT-2), the totals are:

	Total Freight Revenues	Total Out-of-Pocket Cost	Ratio of Cost to Revenues
Import	$11,836,698	$12,813,326	108.3%
Export	$41,409,608	$45,088,769	108.9%

Witness French's Unadjusted Overstatement No. 9.

In order to remove the alleged overstatements described at p. 19 of Exhibit 113, we have substituted for corn, bagged, as in Exhibit 50-A (JLH-6, p. 1) corn in bulk, and the cost-revenue relationships for corn in bulk appear in my Exhibit —— (EMT-2).

I have also added to the revenues for import mahogany lumber and logs as included under Commodity 499 in my Exhibit —— (EMT-1) the accessorial revenues received for loading as set forth by Witness French in his Exhibit 113 at p. 20.

Witness French says that none of the Protestants have grain elevator facilities at New York, whereas at Baltimore [fol. 4690] their elevators produce more revenues than costs, with an overall net credit of 14 cents.

At Baltimore and the other ports, grain is loaded directly from car to ship through elevators. There is no evidence of comparable handling at New York. On the contrary, export grain requires a water movement either to reach the Port Authority's grain elevator at Brooklyn (which has no rail connection and was apparently built to handle grain received from the Barge Canal) or floating elevators which transfer grain from railroad lighter to ship's hold. In order to perpetuate this means of transfer it is understood that the New York Port Authority recently purchased 6 floating elevators. There is no evidence

that the New York Central's grain elevator at Weehawken was used for direct ship loading of export grain in 1956.

Witness French's Unadjusted Overstatement No. 10.

Witness French takes exception to the B&O-CNJ marine equipment maintenance costs as included in the NY terminal study asserting the costs were overstated. The marine maintenance costs included in the cost study for tug boats are based on the average costs for four years whereas those for floats and lighters are the average for a three-year period.

It is an obvious fact that on most railroads maintenance expenditures are not always made on a uniform annual basis. It therefore follows that ordinarily average maintenance costs per year based on the experience for a number of years would be a more accurate basis for the study. This is what I attempted to do in my original study.

[fol. 4691] Since my original costs were prepared and attacked by Witness French, I have developed from the records the cost of maintaining B&O-CNJ marine equipment over a ten-year period.

The following data indicates that the costs per ton for maintaining the B&O-CNJ marine equipment as included in my study are reasonable:

	Cost Per Ton 1956 cost level		
	Maintenance of Tugs (portion assigned to lighters)	Maintenance of Lighters	Total
1947	$0.178	$0.819	$0.997
1948	0.258	0.887	1.145
1949	0.216	0.739	0.955
1950	0.327	0.773	0.100
1951	0.189	0.584	0.773
1952	0.136	0.650	0.786
1953	0.110	0.701	0.811
1954	0.132	0.858	0.990
1955	0.107	0.593	0.700
1956	0.067	0.536	0.603
10 year average	0.177	0.724	0.901
Used in study	$0.115	$0.772	$0.887

In view of the above facts, no adjustment for marine maintenance has been made in the cost study for the B&O-CNJ equipment.

One of the reasons for the low tug and lighter costs during the more recent years is that several units of new equipment were added to the fleet, replacing older units. As these units of equipment become older, the maintenance costs will increase.

[fol. 4692] In addition to those adjustments in the B&O-CNJ terminal costs which were suggested by Witness French and previously referred to herein, other adjustments are also reflected in the terminal costs used in developing my Exhibits —— (EMT-1; EMT-2). The additional adjustments, which are also detailed in the working papers pages 1 to 28 are summed up briefly below:

a) In arriving at the weighted average cost per ton for traffic moving in box cars, open-top cars and reefers on page 1 of my original working papers, I applied the average cost per ton for traffic moving via lighterage piers to all the tons moving via these piers as developed on page 2 of the original working papers. The tonnages used are as follows:

	Tons via Lighterage Piers
Box Car Traffic	30,313
Open Top Car Traffic	10,742
Refrigeration Car Traffic	666
Total	41,721

Of the tonnages so moved, only 31,749 tons were given a marine (lighterage) movement, the others having been trucked in lieu of lighter, etc. The cost of lightering the 31,749 tons (at $3.67 per ton as developed at page 9 of my working papers) spread over the total of 41,721 tons moved via the lighterage piers results in an average unit cost of $2.79 per ton for the lighterage service. This adjustment amounts to a decrease in the cost per ton including return for traffic handled over the lighterage piers of 88 cents (exclusive of payroll tax).

[fol. 4693] b) Classification switching costs at St. George were initially incorrectly separated as between "return" and "costs excluding return." This correction adds 9 cents per car to the costs excluding return and deducts similar amount from the return on the traffic moving via the lighterage piers.

c) While the unit costs are based on the total traffic handled over the facilities, both domestic and import-export, the revised B&O-CNJ costs have been adjusted to eliminate the domestic traffic. Also the adjusted costs include payroll taxes at proper rate of 3.97%. In this revision of costs, adjustment has been made to reflect the fact that trucking and steam lighterage expense are properly assignable 100% to import-export traffic.

In the final paragraph of Witness French's statement (Exhibit 113, at pp. 23-24) it is said:

> Any reasonable doubt as to the compensatory nature of the proposed New York rates as a whole should be dispelled by the figures shown in Witness Keefe's Exhibits No. 1-4. Those exhibits show that on the import-export traffic actually moving through New York, the revenues are $9.30 per ton higher than the revenues on the traffic actually moving through Baltimore. Even on the basis of protestants' original exhibits (JHL 1 and 2 Revised) showing a higher cost at New York of only $7.81 per ton, the traffic actually moving through New York is more remunerative than the traffic actually moving through Baltimore, which Witness Heywood stated at pages 1463 and 1464 of the transcript was compensatory.

There are two comments I wish to make about this testimony.

In the first place, a comparison limited to the average revenue per ton of the traffic through New York as com- [fol. 4694] pared with the traffic through Baltimore is without meaning in the context used by Witness French. As recognized by Respondents' Witness Keefe at pages 1796-7 of the transcript, the higher revenue per ton of the New York traffic does not necessarily make it more desirable

traffic. The missing link which Witness Keefe recognizes (Tr. at 1797) is the average per car loading for the New York and Baltimore movements which produce this $9.30 per ton revenue difference (cited by Witness French). Using the data in both Witness French's Exhibit 113 and Witness Keefe's Exhibit 108, these average loads may be computed as follows:

	Through Baltimore	Through New York
Import	48.2 tons	23.8 tons
Export	47.4 tons	25.3 tons

Applying to these average weights the average revenues per ton computed by Witness Keefe, which are listed at p. 3 of his statement (Exhibit 108), we find that the average per car revenues of the export-import traffic through the ports of Baltimore and New York are as follows:

	Average Revenues Per Car	
	Through Baltimore	Through New York
Import	$391.38	$456.96
Export	$444.61	$455.40

Accordingly, the average revenue per car at New York is not much higher than the average revenue per car at Baltimore. There is, in other words, no important excess revenue arising from the New York traffic—excess over the Baltimore revenue level—with which to meet the vastly greater costs at New York.

[fol. 4695] In the second place, whether the proposed rates are compensatory at New York is determined by comparing the revenues they would produce with the costs at New York. This test can of course be applied directly. The results under this test have been referred to previously in my testimony and need not be repeated here.

3498

[fol. 4696]

(See opposite) ☞

Exhibit No. _____ (EMT-1)

Witness: E. M. Talbott

Before the

INTERSTATE COMMERCE COMMISSION

—oOo—

I & S DOCKET 6615

REVENUES, OUT-OF-POCKET COSTS AND RATIOS OF REPRESENTATIVE MOVEMENTS OF IMPORT TRAFFIC TERMINATING IN DIFFERENTIAL TERRITORY VIA PORT OF NEW YORK

4694

August 1958

Baltimore, Maryland

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Import Traffic Terminating in Differential Territory
via
Port of New York

Group No.	Commodity Description	Type of Equipment	Average Weight Tons	Destination	Short Line Miles 1/	Freight Revenues 2/ Rate	Freight Revenues 2/ Per Car	Out-of-Pocket Costs Line Haul	Out-of-Pocket Costs Terminal Port	Out-of-Pocket Costs Terminal Destination	Out-of-Pocket Costs Total	Ratio of Out-of-Pocket Costs to Revenues
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
19	Flour, Edible, N.O.S.	Box	34.2	Cleveland, O.	552	$.91	$622.44	$166.40	$382.86	$25.82	$575.08	92.4%
		Box	34.2	Parkersburg, W. Va.	520	.80	547.20	156.76	382.86	25.82	565.44	103.3
35	Cotton Linters, Noils & Regins Cotton Waste	Box	20.6	Chicago, Ill.	880	.86	354.32	232.10	244.14	25.82	502.06	141.7
	" "	Box	20.6	Denosha, Wisc.	895	.86	354.32	236.05	244.14	25.82	506.01	142.8
	" "	Box	20.6	Flint, Mich.	647	.77	317.24	170.64	244.14	25.82	440.60	138.9
	" "	Box	20.6	St. Louis, Mo.	1,030	.91	374.92	271.66	244.14	25.82	541.62	144.5
	" "	Box	20.6	Grand Rapids, Mich.	757	.80	329.60	199.65	244.14	25.82	469.61	142.5
	" "	Box	20.6	Detroit, Mich.	621	.73	300.76	163.79	244.14	25.82	433.75	144.2
51	Bananas, Fresh	Refgr.	10.4	Detroit, Mich.	621	1.49	309.92	222.53	70.64	22.23	315.40	101.8
	" "	Refgr.	10.4	Columbus, O.	611	1.49	309.92	218.95	70.64	22.23	311.82	100.6
	" "	Refgr.	10.4	Pittsburgh, Pa.	426	1.29	268.32	152.65	70.64	22.23	245.52	91.5
	" "	Refgr.	10.4	Indianapolis, Ind.	789	1.60	332.80	282.73	70.64	22.23	375.60	112.9
	" "	Refgr.	10.4	Huntington, W. Va.	649	1.49	309.92	232.56	70.64	22.23	325.43	105.0
71	Fruits, Dried, Dehydrated, Evaporated, N.O.S.											
	Fig Paste	Box	22.1	Chicago, Ill.	880	.82	362.44	235.76	259.44	25.82	521.02	143.8
	" "	Box	22.1	Columbus, O.	611	.72	318.24	163.69	259.44	25.82	448.95	141.1
	" "	Box	22.1	St. Louis, Mo.	1,030	.99	437.58	275.94	259.44	25.82	561.20	128.3
	Dates	Box	22.1	Louisville, Ky.	824	1.27	561.34	220.75	259.44	25.82	506.01	90.1
	"	Box	22.1	Urbana, O.	655	.76	335.92	175.48	259.44	25.82	460.74	137.2
	Dried Fruit	Box	22.1	Chicago, Ill.	880	1.36	601.12	235.76	259.44	25.82	521.02	86.7
75	Coffee	Box	24.8	Cincinnati, O.	714	.81	401.76	196.63	286.98	25.82	509.43	126.8
	"	Box	24.8	Chicago, Ill.	880	.91	451.36	242.34	286.98	25.82	555.14	123.0
	"	Box	24.8	Louisville, Ky.	824	.91	451.36	226.92	286.98	25.82	539.72	119.6
	"	Box	24.8	St. Louis, Mo.	1,030	1.09	540.64	283.65	286.98	25.82	596.45	110.3
	"	Box	24.8	Etna, Pa.	426	.64	317.44	117.32	286.98	25.82	430.12	135.5
91	Beans and Peas, Dried	Box	25.5	Austin, Ind.	802	.87	443.70	222.42	294.12	25.82	542.36	122.2
	" " "	Box	25.5	Chicago, Ill.	880	.93	474.30	244.05	294.12	25.82	563.99	118.9
07	Seeds, N.O.S.											
	Annuto	Box	17.4	Madison, Wisc.	950	1.47	511.56	242.13	211.50	25.82	479.45	93.7
	Mustard	Box	17.4	Terre Haute, Ind.	861	1.15	400.20	219.44	211.50	25.82	456.76	114.1
	Grass	Box	17.4	Columbus, O.	611	.91	316.68	155.73	211.50	25.82	393.05	124.1
	"	Box	17.4	Louisville, Ky.	824	1.09	379.32	210.01	211.50	25.82	447.33	117.9
	Canary	Box	17.4	Chicago, Ill.	880	1.27	441.96	224.29	211.50	25.82	461.61	104.4
	"	Box	17.4	Milwaukee, Wisc.	871	1.36	473.28	221.99	211.50	25.82	459.31	97.0

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Import Traffic Terminating in Differential Territory
via
Port of New York

Commodity Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Destination (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Port (10)	Out-of-Pocket Costs Terminal Destination (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
199	Products of Agriculture, N.O.S.											
	Cocoa Beans	Box	25.3	Chicago, Ill.	880	$.96	$485.76	$243.56	$292.08	$25.82	$561.46	115.6%
	" "	Box	25.3	Milwaukee, Wisc.	871	.96	485.76	241.07	292.08	25.82	558.97	115.1
	Fibre Hemp & Sisal	Box	25.3	Newark, O.	578	.84	425.04	159.98	292.08	25.82	477.88	112.4
	" " "	Box	25.3	Chicago, Ill.	880	1.04	526.24	243.56	292.08	25.82	561.46	106.7
	" " "	Box	25.3	Jackson, Mich.	697	1.01	511.06	192.91	292.08	25.82	510.81	100.0
	" " "	Box	25.3	St. Louis, Mo.	1,030	1.04	526.24	285.08	292.08	25.82	602.98	114.6
217	Meats, Cooked, Cured, Dried & Smoked											
	Meats Canned, N.O.I. B.N.	Box	21.0	Chicago, Ill.	880	.88	369.60	233.07	248.22	25.82	507.11	137.2
	" " "	Box	21.0	Cleveland, O.	552	.63	264.60	146.20	248.22	25.82	420.24	158.8
	" " "	Box	21.0	Detroit, Mich.	621	.70	294.00	164.47	248.22	25.82	438.51	149.2
	" " "	Box	21.0	Grand Rapids, Mich.	757	.82	344.40	200.49	248.22	25.82	474.53	137.8
239	Hides, Skins & Pelts, N.O.S.											
	Wet Salted Calf Skins	Box	26.0	Girard, O.	490	.74	384.80	136.57	299.22	25.82	461.61	120.0
	Green Salted Hides	Box	26.0	Rockford, Mich.	964	1.04	540.80	268.68	299.22	25.82	598.72	109.8
	" " "	Box	26.0	Chicago, Ill.	880	1.09	566.80	245.27	299.22	25.82	570.31	100.6
299	Animals & Products											
	Casein	Box	24.6	Hamilton, O.	714	.91	447.72	196.23	284.94	25.82	506.99	113.2
	"	Box	24.6	Milwaukee, Wisc.	871	1.39	683.88	239.38	284.94	25.82	550.14	80.4
	Animal Hair	Box	24.6	Chicago, Ill.	880	1.36	669.12	241.86	284.94	25.82	552.62	82.6
311	Aluminum Ore & Concentrates											
	Bauxite Ore	Gond.	50.7	Danville, Ill.	869	7.39 3/	334.77	342.65	28.15 14/	28.15	398.95	119.2
333	Stone, Rough, N.O.S.											
	Marble & Stone Rough	Flat	38.0	Chicago, Ill.	880	.87	661.20	284.84	380.94	28.15	693.93	105.0
	Quarried	Flat	38.0	Lexington, Ky.	780	.80	608.00	252.47	380.94	28.15	661.56	108.8
	"	Flat	38.0	Dayton, O.	680	.72	547.20	220.11	380.94	28.15	629.20	115.0
	"	Flat	38.0	Green Bay, Wisc.	910	.93	706.80	294.55	380.94	28.15	703.64	99.6
	"	Gond.	38.0	Chicago, Ill.	880	.87	661.20	316.00	380.94	28.15	725.09	109.7
	"	Gond.	38.0	Lexington, Ky.	780	.80	608.00	280.09	380.94	28.15	689.18	113.4
	"	Gond.	38.0	Dayton, O.	680	.72	547.20	244.18	380.94	28.15	653.27	119.4
	"	Gond.	38.0	Green Bay, Wisc.	910	.93	706.80	326.77	380.94	28.15	735.86	104.1

4698

Revenues, Out-of-Pocket Costs and Ratios
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Port of New York

Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Destination (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Port (10)	Out-of-Pocket Costs Terminal Destination (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
399	Products of Mines, N.O.S.											
	Asbestos Fibre	Box	31.1	Atlas, O.	540	$.86	$534.92	$158.14	$351.24	$25.82	$535.20	100.1%
	Graphite	Box	31.1	Clearing, Ill.	880	1.05	653.10	257.72	351.24	25.82	634.78	97.2
	"	Box	31.1	Cincinnati, O.	714	.87	541.14	209.10	351.24	25.82	586.16	108.3
	"	Box	31.1	Swissvale, Pa.	426	.66	410.52	124.76	351.24	25.82	501.82	122.2
	Talc	Box	31.1	Jeffersonville, Ind.	824	.73	454.06	241.82	351.24	25.82	618.38	136.2
	Prepared Chalk	Box	31.1	Wheeling, W.Va.	469	.72	447.84	137.35	351.24	25.82	514.41	114.9
	Marble Chips	Box	31.1	Toledo, O.	658	.58	360.76	192.70	351.24	25.82	569.76	157.9
	" "	Box	31.1	Chicago, Ill.	880	.72	447.84	257.72	351.24	25.82	634.78	141.7
415	Veneer, Plywood & Built Up Wood											
	Plywood	Box	23.7	Detroit, Mich.	621	.93	440.82	169.12	275.76	25.82	470.70	106.8
	"	Box	23.7	Pittsburgh, Pa.	426	.71	336.54	116.02	275.76	25.82	417.60	124.1
	"	Box	23.7	Cincinnati, O.	714	.92	436.08	194.45	275.76	25.82	496.03	113.7
	"	Box	23.7	South Bend, Ind.	803	1.05	497.70	218.69	275.76	25.82	520.27	104.5
499	Products of Forests, N.O.S.											
	Cork Waste	Box	16.2	Chicago, Ill.	880	1.36	440.64	221.36	199.26	25.82	446.44	101.3
	Gum Shellac	Box	16.2	Chicago, Ill.	880	1.35	437.40	221.36	199.26	25.82	446.44	102.1
	Mahogany Lumber	Box	16.2	Wickliffe, O.	552	.62	241.72 12/	138.85	199.26	25.82	363.93	150.6
	Mahogany Logs	Gond.	16.2	Indianapolis, Ind.	789	.77	269.73 13/	235.62	177.11	28.15	440.88	163.5
517	Vegetable and Nut Oils, N.O.S.											
	Vegetable Oil	Box	29.0	Waukegan, Ill.	916	1.09	632.20	262.93	327.82	25.82	618.57	97.8
523	Rubber, Crude, Natural & Synthetic											
	Rubber Crude N.O.I.B.N.	Box	32.5	Akron, O.	540	.88	572.00	160.24	365.52	25.82	551.58	96.4
	" " "	Box	32.5	Mansfield, O.	598	.89	578.50	177.45	365.52	25.82	568.79	98.3
	" " "	Box	32.5	Detroit, Mich.	621	.96	624.00	184.28	365.52	25.82	575.62	92.2
	" " "	Box	32.5	New Haven, Ind.	734	1.01	656.50	217.81	365.52	25.82	609.15	92.8
	" " "	Box	32.5	Louisville, Ky.	824	1.11	721.50	244.52	365.52	25.82	635.86	88.1
527	Chemicals, N.O.S.											
	Chemicals, N.O.I.B.N.	Box	23.6	Zelienople, Pa.	426	.98	462.56	115.90	274.74	25.82	416.46	90.0
	" "	Box	23.6	New Albany, Ind.	824	1.46	689.12	224.18	274.74	25.82	524.74	76.1
	" "	Box	23.6	Troy, O.	682	1.25	590.00	185.55	274.74	25.82	486.11	82.4
	" "	Box	23.6	S.Charleston, W.Va.	603	1.09	514.48	164.05	274.74	25.82	464.61	90.3
539	Fertilizers, N.O.S.											
	Bone Meal	Box	19.2	Troy, O.	682	.64	245.76	177.23	229.86	25.82	432.91	176.2
	Peat Moss	Box	19.2 4/	Charleston, W. Va.	603	.58	232.00	156.70	229.86	25.82	412.38	177.8
	" "	Box	19.2 4/	Etna, Pa.	426	.52	208.00	110.70	229.86	25.82	366.38	176.1
	" "	Box	19.2 4/	Columbus, O.	611	.59	236.00	158.78	229.86	25.82	414.6	175.6
	" "	Box	19.2 4/	Weston, Ill.	933	.76	304.00	242.45	229.86	25.82	498.13	163.9

4699

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545	Tanning Material, N.O.S.											
	Tanning Extract	Box	25.3	Chicago, Ill.	880	$1.15	$581.90	$243.56	$292.08	$25.82	$561.46	96.5%
	" "	Box	25.3	New Albany, Ind.	824	1.09	551.54	228.06	292.08	25.82	545.96	99.0
	" "	Box	25.3	Grand Haven, Mich.	793	1.12	566.72	219.48	292.08	25.82	537.38	94.8
	" "	Box	25.3	Ashtabula, O.	503	.84	425.04	139.22	292.08	25.82	457.12	107.5
559	Copper: Ingot, Matte and Pig											
	Copper Bars and Ingots	Box	45.7 5/	Cleveland, O.	552	.61	610.00	184.01	500.16	25.82	709.99	116.4
	" " " "	Box	45.7	Indianapolis, Ind.	789	.98	895.72	263.01	500.16	25.82	788.99	88.1
	" " " "	Box	45.7	Decatur, Ill.	942	1.13	1,032.82	314.01	500.16	25.82	839.99	81.3
	" " " "	Box	45.7	Pittsburgh, Pa.	426	.72	658.08	142.01	500.16	25.82	667.99	101.5
	" " " "	Box	45.7	Port Huron, Mich.	582	.82	749.48	194.01	500.16	25.82	719.99	96.1
561	Copper, Brass and Bronze, N.O.S.											
	Copper Cable	Box	31.4	Pittsburgh, Pa.	426	.98	615.44	125.11	354.30	25.82	505.23	82.1
	" "	Box	31.4	Chicago, Ill.	880	1.43	898.04	258.45	354.30	25.82	638.57	71.1
	Copper Cathodes	Box	31.4	Indianapolis, Ind.	789	.98	615.44	231.72	354.30	25.82	611.84	99.4
	Brass Tubing	Box	31.4	Grand Haven, Mich.	793	1.39	872.92	232.90	354.30	25.82	613.02	70.2
563	Lead and Zinc: Bar, Ingot & Pig											
	Zinc Slabs	Box	38.2	Cleveland, O.	552	.59	450.76	172.53	423.66	25.82	622.01	138.0
	" "	Box	38.2	Pittsburgh, Pa.	426	.49	374.36	133.15	423.66	25.82	582.63	155.6
	" "	Box	38.2	Detroit, Mich.	621	.69	527.16	194.09	423.66	25.82	643.57	122.1
	" "	Box	38.2	Wardwell, O.	490	.63	481.32	153.15	423.66	25.82	602.63	125.2
569	Alloys for Steel Manufacture											
	Silico - Manganese	Box	40.8	Midland, Mich.	672	18.48 3/	672.67	214.88	450.18	25.82	690.88	102.7
	" "	Box	40.8	Wheeling, W.Va.	469	13.51 3/	491.76	149.97	450.18	25.82	625.97	127.3
	" "	Box	40.8	E. Chicago, Ind.	880	19.88 3/	723.63	281.39	450.18	25.82	757.39	104.7
	Ferro Titanium	Box	40.8	Duquesne, Pa.	426	.86	701.76	136.22	450.18	25.82	612.22	87.2
	Ferro Chrome	Box	40.8	Brackenridge, Pa.	426	.86	701.76	136.22	450.18	25.82	612.22	87.2
571	Metals and Alloys, N.O.S.											
	Metal Antimony	Box	27.9	Cleveland, O.	552	.98	546.84	156.76	318.60	25.82	501.18	91.7
	" "	Box	27.9	Granite City, Ill.	1,030	1.47	820.26	292.51	318.60	25.82	636.93	77.6
	Tin Pig	Box	27.9	Cincinnati, O.	714	1.12	624.96	202.77	318.60	25.82	547.19	87.6
	" "	Box	27.9	Chicago, Ill.	880	1.36	758.88	249.91	318.60	25.82	594.33	78.3
	" "	Box	27.9	Weirton, W.Va.	469	.91	507.78	133.19	318.60	25.82	477.61	94.1

4700

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583	Manufactured Iron and Steel											
	Manufactured Iron & Steel N.O.I.B.N.	Box	26.6	Chicago, Ill.	880	$1.09	$579.88	$246.74	$305.34	$25.82	$577.90	99.7%
	"	Box	26.6	Martins Ferry, O.	469	.75	399.00	131.50	305.34	25.82	462.66	116.0
	"	Box	26.6	Hammond, Ind.	880	1.09	579.88	246.74	305.34	25.82	577.90	99.7
	"	Gond.	26.6	Chicago, Ill.	880	1.09	579.88	288.18	274.35	28.15	590.68	101.9
	"	Gond.	26.6	Martins Ferry, O.	469	.75	399.00	153.59	274.35	28.15	456.09	114.3
	"	Gond.	26.6	Hammond, Ind.	880	1.09	579.88	288.18	274.35	28.15	590.68	101.9
		Gond.	26.6	Milwaukee, Wisc.	871	1.15	611.80	285.23	274.35	28.15	587.73	96.1
595	Machinery and Machines, N.O.S.											
	Printing Press	Box	17.4	Milwaukee, Wisc.	871	1.58	549.84	221.99	211.50	25.82	459.31	83.5
	" "	Box	17.4	Chicago, Ill.	880	1.55	539.40	224.29	211.50	25.82	461.61	85.6
	Machinery or Machines, N.O.I.B.N.	Box	17.4	Oakley, O.	714	1.27	441.96	181.98	211.50	25.82	419.30	94.9
	"	Box	17.4	Dearborn, Mich.	621	1.30	452.40	158.27	211.50	25.82	395.59	87.4
	"	Box	17.4	McKees Rocks, Pa.	426	.98	341.04	108.57	211.50	25.82	345.89	101.4
	"	Box	17.4	St. Louis, Mo.	1,030	1.66	577.68	262.52	211.50	25.82	499.84	86.5
	"	Gond.	17.4	Oakley, O.	714	1.27	441.96	215.60	188.33	28.15	432.08	97.8
	"	Gond.	17.4	Whiting, Ind.	880	1.55	539.40	265.73	188.33	28.15	482.21	89.4
	"	Gond.	17.4	McKees Rocks, Pa.	426	.98	341.04	128.64	188.33	28.15	345.12	101.2
		Gond.	17.4	St. Louis, Mo.	1,030	1.66	577.68	311.02	188.33	28.15	527.50	91.3
655	Scrap Paper and Rags											
	Scrap Bagging	Box	19.0	St. Louis, Mo.	1,030	.87	330.60	267.09	227.82	25.82	520.73	157.5
	" "	Box	19.0	Herrin, Ill.	1,026	.84	319.20	266.05	227.82	25.82	519.69	162.8
	" "	Box	19.0	Warsaw, Ind.	773	.75	285.00	200.44	227.82	25.82	454.08	159.3
		Box	19.0	Defiance, O.	705	.72	273.60	182.81	227.82	25.82	436.45	159.5
657	Newsprint Paper											
	Newsprint Paper	Box	27.1	Louisville, Ky.	824	.91	493.22	232.18	310.44	25.82	568.44	115.3
723	Bagging: Burlap, Cotton, Gunny and Jute, N.O.S.											
	Burlap Bagging	Box	21.1	Pittsburgh, Pa.	426	.86	362.92	112.95	249.24	25.82	388.01	106.9
	" "	Box	21.1	Indianapolis, Ind.	789	.98	413.56	209.19	249.24	25.82	484.25	117.1
	" "	Box	21.1	Chicago, Ill.	880	.98	413.56	233.32	249.24	25.82	508.38	122.9
	" "	Box	21.1	St. Louis, Mo.	1,030	.98	413.56	273.08	249.24	25.82	548.14	132.5
	" "	Box	21.1	Flint, Mich.	647	.98	413.56	171.54	249.24	25.82	446.60	108.0
		Box	21.1	Cincinnati, O.	714	.98	413.56	189.30	249.24	25.82	464.36	112.3

Revenues, Out-of-Pocket Costs and Ratios
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[fol. 4702]

Group No.	Commodity Description	Type of Equipment	Average Weight Tons	Destination	Short Line Miles 1/	Freight Revenues 2/ Rate	Freight Revenues 2/ Per Car	Out-of-Pocket Costs Line Haul	Out-of-Pocket Costs Terminal Port	Out-of-Pocket Costs Terminal Destination	Out-of-Pocket Costs Total	Ratio of Out-of-Pocket Costs to Revenues
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
735	Rope, Cordage and Binder Twine, N.O.S.											
	Baler or Binder	Box	15.2	Chicago, Ill.	880	$1.05	$319.20	$218.92	$189.06	$25.82	$433.80	135.9%
	" "	Box	15.2	Pittsburgh, Pa.	426	.66	200.64	105.98	189.06	25.82	320.86	159.9
	" "	Box	15.2	Hicksville, O.	705	.92	279.68	175.38	189.06	25.82	390.26	139.5
	" "	Box	15.2	Louisville, Ky.	824	1.00	304.00	204.99	189.06	25.82	419.87	138.1
745	Liquors, Alcoholic, N.O.S.											
	Whiskey - Scotch	Box	21.7	Chicago, Ill.	880	1.57 9/						
	" "	Box	21.7	Chicago, Ill.	880	1.25 10/	632.10	234.78	255.36	25.82	515.96	81.6
	" "	Box	21.7	Cleveland, O.	552	1.08 9/						
	" "	Box	21.7	Cleveland, O.	552	.87 10/	436.38	147.27	255.36	25.82	428.45	98.2
	Rum	Box	21.7	Toledo, O.	658	1.33 9/						
	"	Box	21.7	Toledo, O.	658	1.06 10/	535.64	175.55	255.36	25.82	456.73	85.3
749	Liquors, Malt											
	Beer	Refgr.	24.5	Chicago, Ill.	880	.87	426.30	349.75	241.06	22.23	613.04	143.8
759	Sugar											
	Sugar N.O.I.B.N.	Box	33.9	Allegheny, Pa.	426	.49	332.22	128.07	379.80	25.82	533.69	160.6
	" "	Box	33.9	Brocton, N. Y.	427	.52	352.56	128.37	379.80	25.82	533.99	151.5
	" "	Box	33.9	Columbus, O.	611	.79	535.62	183.68	379.80	25.82	589.30	110.0
	" "	Box	33.9	Wheeling, W. Va.	469	.57	386.46	140.99	379.80	25.82	546.61	141.4
	" "	Box	33.9	Orrville, O.	526	.77	522.06	158.13	379.80	25.82	563.75	108.0
763	Food Products, N.O.S. in Cans and Packages, not frozen											
	Olives in Barrels	Box	17.5	Chicago, Ill.	880	.93	325.50	224.53	212.52	25.82	462.87	142.2
	" "	Box	17.5	Terre Haute, Ind.	861	.92	322.00	219.68	212.52	25.82	458.02	142.2
	Lemon Juice Concentrates in Barrels	Box	17.5	Chicago, Ill.	880	.93	325.50	224.53	212.52	25.82	462.87	142.2
	Prepared Cocoanut	Box	17.5	Pittsburgh, Pa.	426	.59	206.50	108.69	212.52	25.82	347.03	168.1
773	Feed, Animal and Poultry, N.O.S.											
	Feed Animal Poultry, N.O.S.	Box	27.8	Springfield, O.	655	.81	450.36	185.83	317.58	25.82	529.23	117.5
	" " " "	Box	27.8	Toledo, O.	658	.86	478.16	186.68	317.58	25.82	530.08	110.9
	" " " "	Box	27.8	Adell, Wisc.	898	1.09	606.04	254.77	317.58	25.82	598.17	98.7
	" " " "	Box	27.8	Blue Island, Ill.	880	1.01	561.56	249.66	317.58	25.82	593.06	105.6

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Import Traffic Terminating in Differential Territory
via
Port of New York

Commodity Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Destination (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Port (10)	Out-of-Pocket Costs Terminal Destination (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
797	Waste Materials, N.O.S.											
	Scrap Rubber	Box	19.2 4/	Akron, O.	540	$.52	$208.00	$140.33	$229.86	$25.82	$396.01	190.4%
	" "	Box	19.2 4/	Indianapolis, Ind.	789	.66	264.00	205.03	229.86	25.82	460.71	174.5
	" "	Box	19.2 4/	E. St. Louis, Ill.	1,030	.80	320.00	267.66	229.86	25.82	523.34	163.5
	Jute Waste	Box	19.2	Detroit, Mich.	621	.81	311.04	161.37	229.86	25.82	417.05	134.1
	" "	Box	19.2	Herrin, Ill.	1,026	1.12	430.08	266.62	229.86	25.82	522.30	121.4
799	Manufactures and Miscellaneous N.O.S.											
	Iron Mass or Sponge	Box	11.3 4/	Weirton, W. Va.	469	.58	232.00	111.60	149.28	25.82	286.70	123.6
	Carnauba Wax	Box	11.3 11/	Racine, Wisc.	895	1.35	405.00	212.97	149.28	25.82	388.07	95.8

NOTES:
1/ Excludes 10 mile arbitrary under Appendix K, Docket 15879 Eastern Class Rate Investigation
2/ Rates and Revenues via Baltimore
3/ Applies per 2,240 Pounds
4/ Minimum Weight 40,000 Pounds
5/ Minimum Weight 100,000 Pounds
6/ Applies per 2,000 Pounds
7/ 120 United Inches and Under
8/ Exceeding 120 United Inches
9/ 28,000 Pounds
10/ Excess Weight
11/ Minimum Weight 30,000 Pounds
12/ Loading charge of $2.49 per ton added to per car revenues
13/ " " " $1.25 " " " " " " "
14/ Same as inland terminal cost, in absence of specially determined costs for bulk traffic handled direct from ship to car at New Jersey rail-heads

4703

Exhibit No. _____ (EMT-2)

Witness: E. M. Talbott

Before the

INTERSTATE COMMERCE COMMISSION

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I & S DOCKET 6615

REVENUES, OUT-OF-POCKET COSTS AND RATIOS OF REPRESENTATIVE MOVEMENTS OF EXPORT TRAFFIC ORIGINATING IN DIFFERENTIAL TERRITORY

VIA

PORT OF NEW YORK

August 1958

Baltimore, Maryland

[fol. 4705]

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Port (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
1	Wheat											
	Wheat	Box	55.4	Indianapolis, Ind.	789	$ .445	$498.06	$284.23	$25.82	$ 61.30	$371.35	75.3%
	"	Box	55.4	Louisville, Ky.	824	.445	493.06	296.84	25.82	61.30	383.96	77.9
	"	Box	55.4	Chicago, Ill.-(Prop.)	880	.325	360.10	317.02	25.82	61.30	404.14	112.2
	"	Box	55.4	Springfield, Ill. (Prop.)	981	.36	398.88	353.40	25.82	61.30	440.52	110.4
3	Corn											
	Corn, Bulk	Box	55.0	Chicago, Ill.-(Prop.)	880	.325	357.50	316.04	25.82	61.23	403.09	112.8
	" "	Box	55.0	Deshler, O.	664	.445	489.50	238.47	25.82	61.23	325.52	66.5
	" "	Box	55.0	Indianapolis, Ind.	789	.445	489.50	283.36	25.82	61.23	370.41	75.7
	" "	Box	55.0	Pittsburgh, O.	682	.445	489.50	244.93	25.82	61.23	331.98	67.8
	" "	Box	55.0	Milwaukee, Wisc.	871	.325	357.50	312.81	25.82	61.23	399.86	111.8
	" "	Box	55.0	Louisville, Ky.	824	.445	489.50	295.93	25.82	61.23	382.98	78.2
7	Oats											
	Oats	Box	41.9	Stewart, Ind.	869	.445	372.91	280.52	25.82	58.87	365.21	97.9
	"	Box	41.9	Chicago, Ill.-(Prop.)	880	.325	272.35	284.07	25.82	58.87	368.76	135.4
	"	Box	41.9	Hammond, Ind.-(Prop.)	880	.325	272.35	284.07	25.82	58.87	368.76	135.4
	"	Box	41.9	Milweukee, Wisc.- (Prop.)	871	.325	272.35	281.17	25.82	58.87	365.86	134.3
9	Barley and Rye											
	Barley	Box	50.0	Boonville, Ind.	941	.575	575.00	324.90	25.82	60.33	411.05	71.5
	"	Box	50.0	Cincinnati, O.	714	.445	445.00	246.52	25.82	60.33	332.67	74.8
	Rye	Box	50.0	Chicago, Ill.-(Prop.)	880	.325	325.00	303.84	25.82	60.33	389.99	120.0
15	Flour, Wheat											
	Flour, Wheat	Box	43.1	Dover, O.	512	.465	400.83	166.98	25.82	473.64	666.44	166.3
	" "	Box	43.1	Cleveland, O.	552	.465	400.83	180.03	25.82	473.64	679.49	169.5
	" "	Box	43.1	Homeworth, O.	509	.465	400.83	166.00	25.82	473.64	665.46	166.0
	" "	Box	43.1	Wooster, O.	576	.465	400.83	187.85	25.82	473.64	687.31	171.5
	" "	Box	43.1	Indianapolis, Ind.	789	.555	478.41	257.32	25.82	473.64	756.78	158.2
17	Meal, Corn											
	Meal, Corn	Box	31.9	Cowan, Ind.	746	.555	354.09	220.13	25.82	359.40	605.35	171.0
	" "	Box	31.9	Grove City, O.	611	.47	299.86	180.29	25.82	359.40	565.51	188.6
	" "	Box	31.9	Marion, O.	635	.47	299.86	187.38	25.82	359.40	572.60	191.0
	" "	Box	31.9	Bradford, O.	682	.525	334.95	201.24	25.82	359.40	586.46	175.1
	" "	Box	31.9	Pikeville, O.	682	.525	334.95	201.24	25.82	359.40	586.46	175.1

4705

[fol. 4706]

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Port (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
19	Flour, Edible, N.O.S.											
	Flour, Edible, N.O.S.	Box	26.7	Hamilton, O.	714	$ .525	$280.35	$200.39	$25.82	$306.36	$532.57	190.0%
	" " "	Box	26.7	Fostoria, O.	632	.47	250.98	177.38	25.82	306.36	509.56	203.0
	" " "	Box	26.7	Springfield,Ill.	981	.72	384.48	275.33	25.82	306.36	607.51	158.0
	" " "	Box	26.7	Dahlgreen,Ill.	990	.72	384.48	277.85	25.82	306.36	610.03	158.7
21	Cereal Food, Preparations,N.O.S.											
	Cereal Food Preparations,N.O.S.	Box	24.2	Battle Creek,Mich.	741	.605	292.82	202.83	25.82	280.86	509.51	174.0
23	Mill Products, N.O.S.											
	Cracked Corn, N.O.S.	Box	30.5	Pittsburgh, O.	682	.525	320.25	198.60	25.82	345.12	569.54	177.8
	" " "	Box	30.5	Greenville, O.	715	.525	320.25	208.21	25.82	345.12	579.15	180.8
29	Tobacco,Unmanufactured											
	Leaf Tobacco	Box	13.7	Wheeling, W.Va.	469	1.12	306.88	114.72	25.82	173.76	314.30	102.4
	" "	Box	13.7	Louisville, Ky.	824	1.35	369.90	201.56	25.82	173.76	401.14	108.4
45	Soybean Oil Cake and Meal											
	Soybean Meal	Box	32.0	Painesville, O.	528	.415	265.60	155.95	25.82	360.42	542.19	204.1
	" "	Box	32.0	Decatur, Ill.	942	.72	460.80	278.23	25.82	360.42	664.47	144.2
	" "	Box	32.0	Bellevue, O.	590	.47	300.80	174.26	25.82	360.42	560.50	186.3
103	Malt, N.O.S.											
	Malt, N.O.S.	Box	41.9	Milwaukee, Wisc.	871	.65	544.70	281.17	25.82	461.40	768.39	141.1
	" "	Box	41.9	Cincinnati, O.	714	.525	439.95	230.49	25.82	461.40	717.71	163.1
	" "	Box	41.9	St.Louis, Mo.	1,030	.72	603.36	332.49	25.82	461.40	819.71	135.9
	" "	Box	41.9	Manitowoc, Wisc.	872	.65	544.70	281.49	25.82	461.40	768.71	141.1
	" "	Box	41.9	Chicago, Ill.	880	.65	544.70	284.07	25.82	461.40	771.29	141.6
199	Products of Agriculture, N.O.S.											
	Fatty Acids of Vegetable Oils	Box	25.5	Ivorydale, O.	714	.92	469.20	198.02	25.82	294.12	517.96	110.4
	" " " "	Box	25.5	Chicago, Ill.	880	1.09	555.90	244.05	25.82	294.12	563.99	101.5
215	Meats, Fresh											
	Meats, Fresh, N.O.S.	Refgr.	18.3	Chicago, Ill.	880	1.19	435.54	334.62	22.23	189.60	546.45	125.5
	" " "	Refgr.	18.3	Cincinnati, O.	714	1.05	384.30	271.50	22.23	189.60	483.33	125.8
	" " "	Refgr.	18.3	Indianapolis,Ind.	789	1.05	384.30	300.02	22.23	189.60	511.85	133.2

Revenues, Out-of-Pocket Costs and Ratios
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Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Port (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
217	Meats, Cooked, Cured, Dried, and Smoked											
	Canned Meats	Refgr.	19.7 6/	Brighton, O.	714	$ .95	$380.00	$274.27	$22.23	$201.22	497.72	131.0%
	"	Refgr.	19.7 6/	Chicago, Ill.	880	.82	328.00	338.04	22.23	201.22	561.49	171.2
219	Packing House Products Edible, N.O.S.											
	Lard, N.O.S.	Refgr.	21.3	Dayton, O.	680	.92	391.92	264.23	22.23	214.50	500.96	127.8
	" "	Refgr.	21.3	Chicago, Ill.	880	.82	349.32	341.94	22.23	214.50	578.67	165.7
	" "	Refgr.	21.3	Cleveland, O.	552	.79	336.54	214.49	22.23	214.50	451.22	134.1
	" "	Refgr.	21.3	Davenport, Ia.	1,031	1.26	536.76	400.61	22.23	214.50	637.34	118.7
	" "	Refgr.	21.3	Cincinnati, O.	714	.95	404.70	277.44	22.23	214.50	514.17	127.0
229	Butter											
	Butter	Refgr.	28.8	Chicago, Ill.	880	1.36	783.36	360.24	22.23	276.75	659.22	84.2
	"	Refgr.	28.8	Cleveland, O.	552	.98	564.48	225.97	22.23	276.75	524.95	93.0
231	Cheese											
	Cheese	Refgr.	21.8	Chicago, Ill.	880	1.36	592.96	343.16	22.23	218.65	584.04	98.5
	"	Refgr.	21.8	Green Bay, Wisc.	910	1.46	636.56	354.86	22.23	218.65	595.74	93.6
	"	Refgr.	21.8	Cincinnati, O.	714	1.12	488.32	278.43	22.23	218.65	519.31	106.3
	"	Refgr.	21.8	Osborn, Ind.	880	1.36	592.96	343.16	22.23	218.65	584.04	98.5
	"	Refgr.	21.8	Dubuque, Ia.	1,051	1.52	662.72	409.84	22.23	218.65	650.72	98.2
239	Hides, Skins and Pelts, N.O.S.											
	Hides Green Salted	Box	28.5	Detroit, Mich.	621	.87	495.90	177.39	25.82	324.72	527.93	106.5
	" " "	Box	28.5	New Castle, Pa.	490	.74	421.80	139.97	25.82	324.72	490.51	116.3
	" " "	Box	28.5	Galewood, Ill.	880	1.09	621.30	251.37	25.82	324.72	601.91	96.9
	" " "	Box	28.5	Dubuque, Ia.	1,051	1.21	689.70	300.22	25.82	324.72	650.76	94.4
299	Animals and Products, N.O.S.											
	Animal Tallow Inedible	Box	25.1	Cincinnati, O.	714	.71	356.42	197.22	25.82	290.04	513.08	144.0
	" " "	Box	25.1	Chicago, Ill.	880	.88	441.76	243.08	25.82	290.04	558.94	126.5
	" " "	Box	25.1	Cleveland, O.	552	.63	316.26	152.48	25.82	290.04	468.34	148.1
	" " "	Box	25.1	St. Louis, Mo.	1,030	.95	476.90	284.51	25.82	290.04	600.37	125.9
	" " "	Box	25.1	Dover, O.	512	.61	306.22	141.43	25.82	290.04	457.29	149.3
341	Salt											
	Salt	Box	26.0	Mannistee, Mich.	821	.545	283.40	228.83	25.82	299.22	553.87	195.4

Revenues, Out-of-Pocket Costs and Ratios
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[fol. 4708]

Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Port (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
505	Lubricating Oils and Greases											
	Lubricating Oil	Box	23.1	Columbus, O.	611	$ .82	$378.84	$165.38	$25.82	$269.64	$460.84	121.6%
	" "	Box	23.1	Cleveland, O.	552	.80	369.60	149.41	25.82	269.64	444.87	120.4
	" "	Box	23.1	Pittsburgh, Pa.	426	.57	263.34	115.31	25.82	269.64	410.77	156.0
	" "	Box	23.1	Petrolia, Pa.	439	.57	263.34	118.83	25.82	269.64	414.29	157.3
	" "	Box	23.1	Freedom, Pa.	426	.57	263.34	115.31	25.82	269.64	410.77	156.0
	" "	Box	23.1	Rouseville, Pa.	439	.57	263.34	118.83	25.82	269.64	414.29	157.3
507	Petroleum Products, Refined, N.O.S.											
	Petrolatum	Box	21.2	Karns City, Pa.	439	.57	241.68	116.51	25.82	250.26	392.59	162.4
	Petroleum Wax	Box	21.2	Petrolia, Pa.	439	.57	241.68	116.51	25.82	250.26	392.59	162.4
	Petroleum Oil, N.O.I.B.N.	Box	21.2	Lima, O.	684	.87	368.88	181.54	25.82	250.26	457.62	124.1
515	Soybean Oil											
	Soybean Oil	Box	24.7	Kankakee, Ill.	881	1.09	538.46	242.38	25.82	285.96	554.16	102.9
	" "	Box	24.7	Painesville, O.	537	.80	395.20	147.74	25.82	285.96	459.52	116.3
	" "	Box	24.7	Decatur, Ill.	942	1.12	553.28	259.16	25.82	285.96	570.94	103.2
	" "	Box	24.7	Ivorydale, O.	714	.92	454.48	196.43	25.82	285.96	508.21	111.8
517	Vegetable and Nut Oils, N.O.S.											
	Vegetable Oil, N.O.I.B.N.	Box	25.1	Chicago, Ill.	880	1.09	547.18	243.08	25.82	290.04	558.94	102.1
	" " "	Box	25.1	Decatur, Ill.	942	1.12	562.24	260.20	25.82	290.04	576.06	102.5
	" " "	Box	25.1	Painesville, O.	528	.80	401.60	145.85	25.82	290.04	461.71	115.0
	" " "	Box	25.1	New Castle, Pa.	490	.74	371.48	135.35	25.82	290.04	451.21	121.5
523	Rubber, Crude, Natural and Synthetic											
	Neoprene Rubber	Box	40.9	Louisville, Ky.	824	.96	785.28	263.71	25.82	451.20	740.73	94.3
	" "	Box	40.9	Chicago, Ill.	880	1.15	940.70	281.63	25.82	451.20	758.65	80.6
	" "	Box	40.9	Akron, O.	540	.86	703.48	172.82	25.82	451.20	649.84	92.4
	" "	Box	40.9	Painesville, O.	528	.86	703.48	168.98	25.82	451.20	646.00	91.8
525	Rubber Goods, N.O.S.											
	Rubber Goods, N.O.I.B.N.	Box	19.0	Akron, O.	540	1.06	402.80	140.03	25.82	227.82	393.67	97.7
527	Chemicals, N.O.S.											
	Ultramine Blue	Box	22.1	Huntington, W.Va.	649	1.19	525.98	173.87	25.82	259.44	459.13	87.3
	Chemicals, N.O.S.	Box	22.1	Chicago, Ill.	880	1.38	609.96	235.76	25.82	259.44	521.02	85.4
	" "	Box	22.1	Marietta, O.	534	1.09	481.78	143.06	25.82	259.44	428.32	88.9
	" "	Box	22.1	Louisville, Ky.	824	1.46	645.32	220.75	25.82	259.44	506.01	78.4

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531	Acids, N.O.S.											
	Phthalic Anhydride	Box	31.6 4/	Chicago, Ill.	880	$ .73	$511.00	$258.94	$25.82	$356.34	$641.10	125.5%
	" "	Box	31.6 4/	Ironton, O.	649	.69	483.00	190.97	25.82	356.34	573.13	118.7
533	Sodium (Soda) Products											
	Liquid Caustic Soda	Box	60.3	S.Charleston, W.Va.	603	.59	711.54	225.42	25.82	649.08	900.32	126.5
	Sodium Phosphate	Box	60.3	Trenton, Mich.	621	13.06 3/	787.52	232.15	25.82	649.08	907.05	115.2
541	Insecticides and Fungicides,N.O.S.											
	Insecticides, N.O.I.B.N.	Box	34.3	S.Charleston, W.Va.	603	.73	500.78	181.95	25.82	383.88	591.65	118.1
	" "	Box	34.3	Racine, Wisc.	895	1.03	706.58	270.05	25.82	383.88	679.75	96.2
	" "	Box	34.3	St. Louis, Mich.	710	.97	665.42	214.23	25.82	383.88	623.93	93.8
547	Paint, Paint Material, Putty, and Varnish											
	Paint, N.O.I.B.N.	Box	26.7	Cleveland, O.	552	.98	523.32	154.92	25.82	306.36	487.10	93.1
	" "	Box	26.7	Yorkville, O.	469	.91	485.94	131.63	25.82	306.36	463.81	95.4
	" "	Box	26.7	Huntington, W.Va.	649	1.01	539.34	182.15	25.82	306.36	514.33	95.4
	" "	Box	26.7	Institute, W.Va.	603	.98	523.32	169.24	25.82	306.36	501.42	95.8
549	Plastics											
	Synthetic Resin	Box	29.3	Marietta, O.	534	1.01	591.86	153.72	25.82	332.88	512.42	86.6
	" "	Box	29.3	Ottawa, Ill.	948	1.49	873.14	272.90	25.82	332.88	631.60	72.3
	" "	Box	29.3	Ficklin, Ill.	903	1.47	861.42	259.95	25.82	332.88	618.65	71.8
	" "	Box	29.3	Chicago, Ill.	880	1.46	855.56	253.33	25.82	332.88	612.03	71.5
553	Drugs, Medicines, Toilet Prep.											
	Disinfectants, N.O.I.B.N.	Box	26.0	Wyandotte, Mich.	621	1.33	691.60	173.08	25.82	299.22	498.12	72.0
	Drugs, N.O.I.B.N.	Box	26.0	St. Louis, Mo.	1,030	1.58	821.60	287.08	25.82	299.22	612.12	74.5
	" "	Box	26.0	Chicago, Ill.	880	1.38	717.60	245.27	25.82	299.22	570.31	79.5
	" "	Box	26.0	Detroit, Mich.	621	1.33	691.60	173.08	25.82	299.22	498.12	72.0
	" "	Box	26.0	Terre Haute, Ind.	869	1.38	717.60	242.21	25.82	299.22	567.25	79.0
555	Aluminum Bar Ingot,Pig & Slab											
	Aluminum Ingots, Pig & Slab	Box	22.3	Chicago, Ill.	880	1.27	566.42	236.24	25.82	261.48	523.54	92.4
	" " " "	Box	22.3	Heath, O.	578	1.04	463.84	155.17	25.82	261.48	442.47	95.4
	" " " "	Box	22.3	Brighton, O.	714	1.09	486.14	191.68	25.82	261.48	478.98	98.5
	" " " "	Box	22.3	Louisville, Ky.	824	1.22	544.12	221.21	25.82	261.48	508.51	93.5

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Port (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
561	Copper, Brass and Bronze, N.O.S.											
	Copper Tubing	Box	24.3	St. Louis, Mo.	1,030	$1.85	$899.10	$282.22	$25.82	$281.88	$589.92	65.6%
	Copper Cable	Box	24.3	Cleveland, O.	552	1.09	529.74	151.25	25.82	281.88	458.95	86.6
	Copper Wire	Box	24.3	Glassport, Pa.	426	.98	476.28	116.73	25.82	281.88	424.43	89.1
569	Alloys for Steel Manufacture											
	Ferro Chrome	Box	29.0	Marietta, O.	534	19.00 5/	492.10	153.28	25.82	329.82	508.92	103.4
	" "	Box	29.0	Graham, W. Va.	562	18.60 5/	481.74	161.32	25.82	329.82	516.96	107.3
	" "	Box	29.0	Lorain, O.	552	20.20 5/	523.18	158.44	25.82	329.82	514.08	98.3
	" "	Box	29.0	Peoria, Ill.	978	28.00 5/	725.20	280.72	25.82	329.82	636.36	87.7
575	Iron & Steel: Billet Bloom & Ingot											
	Steel Billets	Gond.	60.0	Youngstown, O.	490	9.80 5/	525.28	205.84	28.15	586.64	820.63	156.2
	" "	Gond.	60.0	Warren, O.	490	9.80 5/	525.28	205.84	28.15	586.64	820.63	156.2
	" "	Gond.	60.0	Canton, O.	526	10.04 5/	538.14	220.97	28.15	586.64	835.76	155.3
	" "	Gond.	60.0	Pittsburgh, Pa.	426	9.07 5/	486.15	178.96	28.15	586.64	793.75	163.3
577	Iron and Steel, Bar Rod & Slab											
	Rods Coiled, Iron & Steel	Gond.	29.0	St. Louis, Mo.	1,030	.84	487.20	344.15	28.15	296.79	669.09	137.3
	Bars Sheet & Tinplate	Gond.	29.0	Warren, O.	490	.49	284.20	163.72	28.15	296.79	488.66	171.9
	" " "	Gond.	29.0	Pittsburgh, Pa.	426	.45	261.00	142.34	28.15	296.79	467.28	179.0
581	Iron & Steel Nails & Wire (Woven & Not Woven)											
	Nails Iron & Steel	Box	28.0	Aliquippa, Pa.	426	.45	252.00	121.10	25.82	319.62	466.54	185.1
	" " "	Box	28.0	Troy, O.	682	.61	341.60	193.87	25.82	319.62	539.31	157.9
	" " "	Box	28.0	Wheeling, W.Va.	469	.45	252.00	133.32	25.82	319.62	478.76	190.0
	" " "	Box	28.0	Gary, Ind.	880	.73	408.80	250.15	25.82	319.62	595.59	145.7
583	Manufactured Iron & Steel											
	Bars, Iron & Steel	Box	40.4	Youngstown, O.	490	.49	395.92	156.14	25.82	446.10	628.06	158.6
	Mfg. I.& S., N.O.I.B.N.	Box	40.4	Massillon, O.	526	.51	412.08	167.61	25.82	446.10	639.53	155.2
	" " "	Box	40.4	Pittsburgh, Pa.	426	.45	363.60	135.74	25.82	446.10	607.66	167.1
	" " "	Box	40.4	Chicago, Ill.	880	.73	589.84	280.41	25.82	446.10	752.33	127.5
	Tinplate	Box	40.4	Yorkville, O.	469	.45	363.60	149.45	25.82	446.10	621.37	170.9
	Bars, Iron & Steel	Gond.	40.4	Youngstown, O.	490	.49	395.92	179.21	28.15	403.38	610.74	154.3
	Mfg. I.& S., N.O.I.B.N.	Gond.	40.4	Massillon, O.	526	.51	412.08	192.38	28.15	403.38	623.91	151.4
	" " "	Gond.	40.4	Pittsburgh, Pa.	426	.45	363.60	155.81	28.15	403.38	587.34	161.5
	" " "	Gond.	40.4	Chicago, Ill.	880	.73	589.84	321.85	28.15	403.38	753.38	127.7

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

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587	Iron & Steel Pipe & Fittings											
	Pipe & Fittings Iron & Steel	Gond.	36.3	Moundsville, W.Va.	469	$ .45	$326.70	$166.20	$28.15	$365.05	$559.40	171.2%
	" " " "	Gond.	36.3	Allegheny, Pa.	426	.45	326.70	150.96	28.15	365.05	544.16	166.6
	" " " "	Gond.	36.3	Chicago, Ill.	880	.73	529.98	311.85	28.15	365.05	705.05	133.0
	" " " "	Gond.	36.3	Massillon, O.	526	.51	370.26	186.40	28.15	365.05	579.60	156.5
	Wrought Iron Pipe	Gond.	36.3	S. Lorain, O.	552	.51	370.26	195.61	28.15	365.05	588.81	159.0
589	Tanks, N.O.S.											
	I & S Tanks	Gond.	18.0	Columbiana, O.	489	1.01	363.60	148.47	28.15	193.94	370.56	101.9
	" "	Gond.	18.0	Louisville, Ky.	824	1.46	525.60	250.19	28.15	193.94	472.28	89.9
	Pontoon Tanks	Gond.	18.0	Ft. Wayne, Ind.	734	1.36	489.60	222.86	28.15	193.94	444.95	90.9
	Wooden Tanks	Gond.	18.0	Massillon, O.	526	.95	342.00	159.71	28.15	193.94	381.80	111.6
591	Agricultural Implements											
	Agricultural Implements,N.O.I.B.N.	Box	21.9	Moline, Ill.	1,031	.93	407.34	275.64	25.82	257.40	558.86	137.2
	" " "	Box	21.9	South Bend, Ill.	830	.88	385.44	221.90	25.82	257.40	505.12	131.1
	" " "	Box	21.9	Chicago, Ill.	880	.93	407.34	235.27	25.82	257.40	518.49	127.3
	" " "	Box	21.9	Louisville, Ky.	824	.80	350.40	220.30	25.82	257.40	503.52	143.7
593	Agricultural Implement Parts, N.O.S.											
	Plow Parts & Harrow Disc	Box	24.8	South Bend, Ind.	803	.88	436.48	221.14	25.82	286.98	533.94	122.3
	Agricultural Implement Parts,N.O.S.	Box	24.8	Burlington, Ia.	1,064	.93	461.28	293.02	25.82	286.98	605.82	131.3
	" " " "	Box	24.8	Midland, Pa.	426	.61	302.56	117.32	25.82	286.98	430.12	142.2
	" " " "	Box	24.8	Racine, Wisc.	895	.93	461.28	246.47	25.82	286.98	559.27	121.2
	" " " "	Box	24.8	Battle Creek,Mich.	741	.85	421.60	204.06	25.82	286.98	516.86	122.6
	" " " "	Box	24.8	Bucyrus, O.	635	.71	352.16	174.87	25.82	286.98	487.67	138.5
595	Machinery & Machines N.O.S.											
	Printing Presses	Box	21.0	Chicago, Ill.	880	1.55	651.00	233.07	25.82	248.22	507.11	77.9
	Crane or Derricks	Gond.	21.0	Lorain, O.	552	.93	390.60	172.19	28.15	221.99	422.33	108.1
	Road Graders	Gond.	21.0	Indianapolis, Ind.	789	.85	357.00	246.12	28.15	221.99	496.26	139.0
	Machinery, N.O.I.B.N.	Box	21.0	Oakley, O.	714	1.27	533.40	189.11	25.82	248.22	463.15	86.8
597	Machinery Parts											
	Rolling Mill Rolls, N.O.S.	Gond.	24.7 15/	Lima, O.	684	.60	300.00	220.39	28.15	256.59	505.13	168.4
	Ore Milling Mach. Parts	Gond.	24.7	Milwaukee, Wisc.	871	1.58	780.52	280.64	28.15	256.59	565.38	72.4
	Ice Cans	Box	24.7	Niles, O.	490	1.01	498.94	134.81	25.82	285.96	446.59	89.5
	" "	Box	24.7	Christy Park, Pa.	426	.98	484.12	117.20	25.82	285.96	428.98	88.6
601	Business & Office Machines, N.O.S.											
	Cash Registers	Box	20,9	Dayton, O.	680	1.70	710.60	179.91	25.82	247.20	452.93	63.7

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

[fol. 4712]

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605	Railway Equipment SU Not on Own Wheels											
	Locomotive Not Moved on Own Wheels	Flat	37.9	Erie, Pa.	483	$ .82	$621.56	$156.21	$28.15	$380.01	$564.37	90.8%
	" " " "	Flat	37.9	Chicago, Ill.	880	1.55	1,174.90	264.60	28.15	380.01	692.76	59.0
	" " " "	Flat	37.9	St. Louis, Mo.	1,030	1.66	1,258.28	333.11	28.15	380.01	741.27	58.9
607	Railway Equipment Parts											
	Brake Shoes Railway	Box	24.9	Lordstown, O.	490	.49	244.02	135.08	25.82	288.00	448.90	184.0
	Car Wheels	Box	24.9	Verona, Pa.	426	.45	224.10	117.43	25.82	288.00	431.25	192.4
	Air Brake Equipment	Box	24.9	Wilmerding, Pa.	426	1.09	542.82	117.43	25.82	288.00	431.25	79.4
	Springs	Box	24.9	Pittsburgh, Pa.	426	.92	458.16	117.43	25.82	288.00	431.25	94.1
	Couplers	Box	24.9	Alliance, O.	509	.51	253.98	140.32	25.82	288.00	454.14	178.8
	Underframes	Gond.	24.9	East St. Louis, Ill.	1,030	.84	418.32	332.44	28.15	258.46	619.05	148.0
609	Rails & Railway Track Material Iron & Steel											
	Rails	Gond.	32.2	Bessemer, Pa.	426	12.71 5/	366.05	146.12	28.15	326.71	500.98	136.9
	"	Gond.	32.2	Carnegie, Pa.	426	12.71 5/	366.05	146.12	28.15	326.71	500.98	136.9
	Spikes	Box	32.2	Neville Island, Pa.	426	.45	289.80	126.06	25.82	362.46	514.34	177.5
	Track Material	Box	32.2	Gary, Ind.	880	.73	470.12	260.40	25.82	362.46	648.68	138.0
611	Vehicles Other Than Motor											
	Childrens Vehicles & Wagons	Box	11.4	Akron, O.	540	1.39	316.92	128.65	25.82	150.30	304.77	96.2
	Trailers Other Than Motor, N.O.I.B.N.	Box	11.4 16/	Oakley, O.	714	1.33	359.10	170.10	25.82	150.30	346.22	96.4
	" " " "	Box	11.4 16/	Fort Wayne, Ind.	734	1.36	367.20	174.86	25.82	150.30	350.98	95.6
	" " " "	Gond.	11.4 16/	Oakley, O.	714	1.33	359.10	203.72	28.15	132.23	364.10	101.4
	" " " "	Gond.	11.4 16/	Fort Wayne, Ind.	734	1.36	367.20	209.43	28.15	132.23	369.81	100.7
	Warehouse Hand Trucks	Box	11.4 13/	Niles, Ohio	490	1.01	242.40	116.73	25.82	150.30	292.85	120.8
	Lift Trucks	Box	11.4 13/	Peoria, Ill.	978	1.61	386.40	232.99	25.82	150.30	409.11	105.9
613	Automobiles-Passenger											
	Automobiles Passenger Set Up	Box	A 7.5	Detroit, Mich.	621	2.10 6/	315.00	141.23	25.82	110.52	277.57	88.1
	" " " "	Box	C 10.0	Detroit, Mich.	621	2.10 6/	420.00	145.53	25.82	136.02	307.37	73.2
	" " " "	Box	B 6.25	Detroit, Mich.	621	2.46 7/	307.50	139.07	25.82	97.77	262.66	85.4
	" " " "	Box	B 6.25	Flint, Mich.	647	2.59	323.75	144.90	25.82	97.77	268.49	82.9
	" " " "	Box	B 6.25	Kenosha, Wisc.	895	3.00	375.00	200.44	25.82	97.77	324.03	86.4
	" " " "	Box	B 6.25	Springfield, O.	655	2.29	286.25	146.69	25.82	97.77	270.28	94.4

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

Commodity						Freight Revenues 2/		Out-of-Pocket Costs				Ratio of Out-of-Pocket Costs to Revenues
Group No.	Description	Type of Equipment	Average Weight Tons	Origin	Short Line Miles 1/	Rate	Per Car	Line Haul	Terminal Origin	Terminal Port	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
615	Automobiles Freight											
	Autos Freight	Flat	15.0	Detroit, Mich.	621	$1.17	$351.00	$161.40	$28.15	$165.89	$355.44	101.3%
	" "	Flat	15.0	Springfield, O.	655	1.24	372.00	170.24	28.15	165.89	364.28	97.9
	" "	Flat	15.0	South Bend, Ind.	803	1.43	429.00	208.70	28.15	165.89	402.74	93.9
	" "	Flat	15.0	Kenosha, Wisc.	895	1.52	456.00	232.61	28.15	165.89	426.65	93.6
	" "	Gond.	15.0	Detroit, Mich.	621	1.17	351.00	183.39	28.15	165.89	377.43	107.5
	" "	Gond.	15.0	Springfield, O.	655	1.24	372.00	193.43	28.15	165.89	387.47	104.2
	" "	Gond.	15.0	South Bend, Ind.	803	1.43	429.00	237.13	28.15	165.89	431.17	100.5
	" "	Gond.	15.0	Kenosha, Wisc.	895	1.52	456.00	264.30	28.15	165.89	458.34	100.5
617	Vehicles Motor, N.O.S.											
	Fire Fighting Equipment	Flat	22.6	Dayton, O.	680	1.70	768.40	191.07	28.15	236.95	456.17	59.4
	Farm Tractors	Flat	22.6	Deerfield, Ill.	916	.93	420.36	257.38	28.15	236.95	522.48	124.3
	" "	Flat	22.6	Peoria, Ill.	978	.93	420.36	274.80	28.15	236.95	539.90	128.4
	" "	Flat	22.6	Racine, Wisc.	895	.93	420.36	251.48	28.15	236.95	516.58	122.9
	Fire Fighting Equipment	Gond.	22.6	Dayton, O.	680	1.70	768.40	215.14	28.15	236.95	480.24	62.5
	Farm Tractors	Gond.	22.6	Deerfield, Ill.	916	.93	420.36	289.81	28.15	236.95	554.91	132.0
	" "	Gond.	22.6	Peoria, Ill.	978	.93	420.36	309.42	28.15	236.95	574.52	136.7
	" "	Gond.	22.6	Racine, Wisc.	895	.93	420.36	283.16	28.15	236.95	548.26	130.4
619	Military Vehicles, N.O.S.											
	Military Tractor Tanks	Flat	26.7	Battle Creek, Mich.	741	1.40	747.60	216.63	28.15	275.29	520.07	69.6
	" " "	Flat	26.7	Peoria, Ill.	978	1.61	859.74	285.92	28.15	275.29	589.36	68.6
	Military Vehicles, N.O.S.	Flat	26.7	Rock Island, Ill.	1,031	2.20	1,174.80	301.41	28.15	275.29	604.85	51.5
	" " "	Flat	26.7	Toledo, O.	658	1.17	624.78	192.37	28.15	275.29	495.81	79.4
	Military Tractor Tanks	Gond.	26.7	Battle Creek, Mich.	741	1.40	747.60	242.86	28.15	275.29	546.30	73.1
	" " "	Gond.	26.7	Peoria, Ill.	978	1.61	859.74	320.54	28.15	275.29	623.98	72.6
	Military Vehicles, N.O.S.	Gond.	26.7	Rock Island, Ill.	1,031	2.20	1,174.80	337.91	28.15	275.29	641.35	54.6
	" " "	Gond.	26.7	Toledo, O.	658	1.17	624.78	215.66	28.15	275.29	519.10	83.1
621	Automobiles & Auto Trucks KD											
	Autos Boxed	Flat	21.8	Springfield, O.	655	1.24	540.64	182.59	28.15	229.47	440.21	81.4
	" "	Flat	21.8	Detroit, Mich.	621	1.17	510.12	173.11	28.15	229.47	430.73	84.4
	" "	Flat	21.8	Kenosha, Wisc.	895	1.52	662.72	249.49	28.15	229.47	507.11	76.5
	" "	Flat	21.8	Wagon Works, O.	658	1.17	510.12	183.42	28.15	229.47	441.04	86.5
	" "	Gond.	21.8	Springfield, O.	655	1.24	540.64	205.78	28.15	229.47	463.40	85.7
	" "	Gond.	21.8	Detroit, Mich.	621	1.17	510.12	195.10	28.15	229.47	452.72	88.7
	" "	Gond.	21.8	Kenosha, Wisc.	895	1.52	662.72	281.18	28.15	229.47	538.80	81.3
	" "	Gond.	21.8	Wagon Works, O.	658	1.17	510.12	206.72	28.15	229.47	464.34	91.0

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Commodity Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Port (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
623	Vehicles Parts, N.O.S.											
	Auto Parts	Box	23.3	Detroit, Mich.	621	$1.17	$545.22	$168.43	$25.82	$271.68	$465.93	85.5%
	" "	Box	23.3	Springfield, O.	655	1.24	577.84	177.66	25.82	271.68	475.16	82.2
	" "	Box	23.3	Kenosha, Wisc.	895	1.52	708.32	242.75	25.82	271.68	540.25	76.3
	" "	Box	23.3	Chicago, Ill.	880	1.52	708.32	238.68	25.82	271.68	536.18	75.7
	" "	Box	23.3	Peoria, Ill.	978	1.66	773.56	265.26	25.82	271.68	562.76	72.7
	" "	Box	23.3	South Bend, Ind.	803	1.43	666.38	217.80	25.82	271.68	515.30	77.3
627	Tires and Tubes Rubber											
	Tire and Tubes Rubber	Box	15.8	Akron, O.	540	1.06	334.96	135.23	25.82	195.18	356.23	106.4
	" " " "	Box	15.8	Columbus, O.	611	1.07	338.12	153.02	25.82	195.18	374.02	110.6
	" " " "	Box	15.8	Louisville, Ky.	824	1.36	429.76	206.36	25.82	195.18	427.36	99.4
	" " " "	Box	15.8	Shelby, O.	598	1.09	344.44	149.76	25.82	195.18	370.76	107.6
635	Cement, N.O.S.											
	High Temperature Bonding	Box	45.5	Zelienople, Pa.	426	8.04 3/	365.82	141.77	25.82	498.12	665.71	182.0
	High Temperature Mortar	Box	45.5	Cleveland, O.	552	8.04 3/	365.82	183.70	25.82	498.12	707.64	193.4
639	Brick and Building Tile											
	Facing Tile	Box	26.0	Anderson, Ind.	746	1.21	629.20	207.92	25.82	299.22	532.96	84.7
	" "	Box	26.0	Zanesville, O.	566	.98	509.60	157.75	25.82	299.22	482.79	94.7
	Hollow Bldg. Tile	Box	26.0	Magnolia, O.	526	8.64 3/	224.64	146.61	25.82	299.22	471.65	210.0
641	Refractories											
	Firebrick	Box	33.3	Firebrick, O.	649	9.12 3/	303.70	194.03	25.82	373.68	593.53	195.4
	"	Box	33.3	Allegheny, Pa.	426	8.04 3/	267.73	127.36	25.82	373.68	526.86	196.8
	"	Box	33.3	Mineral City, O.	526	8.64 3/	287.71	157.25	25.82	373.68	556.75	193.5
	"	Box	33.3	Louisville, Ky.	824	12.57 3/	418.58	246.34	25.82	373.68	645.84	154.3
655	Scrap Paper and Rags											
	Rags	Box	17.8	Kenosha, Wisc.	895	.81	288.36	229.10	25.82	215.58	470.50	163.2
	"	Box	17.8	Piqua, O.	682	.66	234.96	174.58	25.82	215.58	415.98	177.0
	"	Box	17.8	Columbus, O.	611	.62	220.72	156.40	25.82	215.58	397.80	180.2
	"	Box	17.8	Chicago, Ill.	880	.81	288.36	225.26	25.82	215.58	466.66	161.8
	"	Box	17.8	Pittsburgh, Pa.	426	.52	185.12	109.05	25.82	215.58	350.45	189.3
	"	Box	17.8	Jeffersonville, Ind.	824	.78	277.68	210.93	25.82	215.58	452.33	162.9
659	Printing Paper, N.O.S.											
	Printing Paper	Box	23.0	Middletown, O.	680	.87	400.20	183.87	25.82	268.62	478.31	119.5
	" "	Box	23.0	Hamilton, O.	714	.87	400.20	193.07	25.82	268.62	487.51	121.8
	" "	Box	23.0	Chillicothe, O.	628	.78	358.80	169.81	25.82	268.62	464.25	129.4
	" "	Box	23.0	Otsego, Mich.	764	.98	450.80	206.59	25.82	268.62	501.03	111.1

4714

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Port (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
665	Paper and Paper Articles											
	Paper Articles, N.O.I.B.N.	Box	15.9	Chicago, Ill.	880	$1.05	$333.90	$220.63	$25.82	$196.20	$442.65	132.6%
	" " "	Box	15.9	Brighton, O.	714	.87	276.66	179.01	25.82	196.20	401.03	145.0
	" " "	Box	15.9	Chillicothe, O.	628	.78	248.04	157.45	25.82	196.20	379.47	153.0
	" " "	Box	15.9	Cleveland, O.	552	.78	248.04	138.39	25.82	196.20	360.41	145.3
667	Printed Matter, N.O.S.											
	Books, N.O.S.	Box	19.2	Dayton, O.	680	1.70	652.80	176.71	25.82	229.86	432.39	66.2
	" "	Box	19.2	Racine, Wisc.	895	2.20	844.80	232.58	25.82	229.86	488.26	57.8
	Calendars Rolled in Packages	Box	19.2	E. St. Louis, Ill.	1,030	1.15	441.60	267.66	25.82	229.86	523.34	118.5
	Printed Forms	Box	19.2	Dayton, O.	680	.86	330.24	176.71	25.82	229.86	432.39	130.9
	" "	Box	19.2	Shelby, O.	598	.80	307.20	155.40	25.82	229.86	411.08	133.8
669	Paperboard, Fibreboard and Pulpboard											
	Paperboard	Box	23.6	Hamilton, O.	714	.80	377.60	194.28	25.82	274.74	494.81	131.0
	"	Box	23.6	Rittman, O.	540	.80	354.00	146.91	25.82	274.74	447.47	126.4
	"	Box	23.6	Middletown, O.	680	.80	377.60	185.00	25.82	274.74	485.56	128.6
675	Insulating Materials, N.O.S.											
	Mineral Wool	Box	13.7	Newark, O.	578	.72	197.28	141.38	25.82	173.76	340.96	172.8
	" "	Box	13.7	Columbus, O.	611	.73	200.02	149.46	25.82	173.76	349.04	174.5
	" "	Box	13.7	Lockland, O.	714	.80	219.20	174.65	25.82	173.76	374.23	170.7
685	Electrical Equipment and Parts, N.O.S.											
	Batteries and Parts	Box	19.3	Madison, Wisc.	950	1.47	567.42	247.13	25.82	230.88	503.83	88.8
	" " "	Box	19.3	Cleveland, O.	552	.95	366.70	143.60	25.82	230.88	400.30	109.2
	Electrical Appliances, N.O.S.	Box	19.3	Troy, O.	682	1.25	482.50	177.42	25.82	230.88	434.12	90.0
	Radios	Box	19.3	Chicago, Ill.	880	2.69	1,038.34	228.92	25.82	230.88	485.62	46.8
	"	Box	19.3	Indianapolis, Ind.	789	2.46	949.56	205.25	25.82	230.88	461.95	48.6
687	Furnaces, Heaters, Radiators and Parts											
	Heating Furnaces	Box	14.0	Dayton, O.	680	1.09	305.20	166.90	25.82	176.82	369.54	121.1
	" "	Box	14.0	Chicago Heights, Ill.	880	1.36	380.80	215.99	25.82	176.82	418.63	109.9
	Water Heaters	Box	14.0	St. Louis, Mo.	1,030	1.66	464.80	252.81	25.82	176.82	455.45	98.0
693	Glass											
	Glass Pellets	Box	26.7	10/ Newark, O.	578	.78	468.00	162.22	25.82	306.36	494.40	105.6
	Plate Glass	Gond.	26.7	11/ Ford City, Pa.	426	.83	443.22	139.62	28.15	275.29	443.06	100.0
	" "	Gond.	26.7	12/ Ford City, Pa.	426	.96	512.64	139.62	28.15	275.29	443.06	86.4

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

Group No.	Commodity Description	Type of Equipment	Average Weight Tons	Origin	Short Line Miles 1/	Freight Revenues 2/ Rate	Freight Revenues 2/ Per Car	Out-of-Pocket Costs Line Haul	Out-of-Pocket Costs Terminal Origin	Out-of-Pocket Costs Terminal Port	Out-of-Pocket Costs Total	Ratio of Out-of-Pocket Costs to Revenues
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
695	Glassware, N.O.S.											
	Glassware, N.O.S.	Box	16.2	Columbus, O.	611	$.92	$298.08	$153.69	$25.82	$199.26	$378.77	127.1%
	" "	Box	16.2	Lancaster, O.	602	.92	298.08	151.43	25.82	199.26	376.51	126.3
	" "	Box	16.2	Dunkirk, Ind.	746	1.08	349.92	187.65	25.82	199.26	412.73	117.9
697	Glass Bottles, Jars, and Packing Glasses, N.O.S.											
	Common Glass Containers	Box	20.9	Washington, Pa.	426	.59	246.62	112.71	25.82	247.20	385.73	156.4
	" " "	Box	20.9	Lancaster, O.	602	.73	305.14	159.27	25.82	247.20	432.29	141.7
	" " "	Box	20.9	Muncie, Ind.	746	.86	359.48	197.37	25.82	247.20	470.39	130.9
	" " "	Box	20.9	Charleston, W. Va.	603	.67	280.06	159.54	25.82	247.20	432.56	154.5
705	Household Utensils, N.O.S.											
	Sheet Steelware, Household	Box	10.7	Zanesville, O.	566	1.39	297.46	133.74	25.82	143.16	302.72	101.8
	Steel Kettles, "	Box	10.7	Warren, Pa.	407	.87	186.18	96.17	25.82	143.16	265.15	142.4
	Sheet Steelware, "	Box	10.7	West Lafayette, O.	542	1.39	297.46	128.07	25.82	143.16	297.05	99.9
707	Refrigerators, Freezing Apparatus and Parts											
	Refrigerators	Box	10.3	Chicago, Ill.	880	2.12	436.72	206.96	25.82	139.08	371.86	85.1
	"	Box	10.3	Connersville, Ind.	721	1.85	381.10	169.57	25.82	139.08	334.47	87.8
	"	Box	10.3	Dayton, O.	680	1.70	350.20	159.92	25.82	139.08	324.82	92.8
	"	Box	10.3	St. Louis, Mo.	1,030	2.29	471.74	242.24	25.82	139.08	407.14	86.3
	"	Box	10.3	Appliance Park, Ky.	824	1.98	407.88	193.79	25.82	139.08	358.69	87.9
	"	Box	10.3	Grand Rapids, Mich.	757	2.01	414.06	178.03	25.82	139.08	342.93	82.8
709	Laundry Equipment											
	Washing Machines, Household	Box	13.0	Herrin, Ill.	1,026	1.97	512.20	248.98	25.82	166.62	441.42	86.2
	" " "	Box	13.0	Norwood, O.	714	1.52	395.20	173.27	25.82	166.62	365.71	92.5
	" " "	Box	13.0	St. Louis, Mo.	1,030	1.98	514.80	249.95	25.82	166.62	442.39	85.9
	" " "	Box	13.0	Appliance Park, Ky.	824	1.52	395.20	199.96	25.82	166.62	392.40	99.3
	" " "	Box	13.0	Mansfield, O.	598	1.39	361.40	145.12	25.82	166.62	337.56	93.4
711	Stoves, Ranges and Parts											
	Stoves, N.O.I.B.N.	Box	11.9 13/	Brighton, O.	714	1.12	268.80	171.09	25.82	155.40	352.31	131.1
	" "	Box	11.9 13/	Chicago, Ill.	880	1.36	326.40	210.86	25.82	155.40	392.08	120.1
	" "	Box	11.9 13/	Louisville, Ky.	824	1.27	304.80	197.45	25.82	155.40	378.67	124.2
	" "	Box	11.9 13/	St. Louis, Mo.	1,030	1.47	352.80	246.81	25.82	155.40	428.03	121.3

Revenues, Out-of-Pocket Costs and Ratios
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Port of New York

Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Port (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
715	Furniture, N.O.S.											
	Furniture, N.O.I.B.N.	Box	11.6 13/	Chicago, Ill.	880	$2.12	$508.80	$210.13	$25.82	$152.34	$388.29	76.3%
	" "	Box	11.6 13/	E. St. Louis, Ill.	1,030	2.29	549.60	245.95	25.82	152.34	424.11	77.2
	" "	Box	11.6 13/	Perrysburg, O.	658	1.81	434.40	157.12	25.82	152.34	335.28	77.2
	" "	Box	11.6 13/	Shelby, O.	598	1.61	386.40	142.79	25.82	152.34	320.95	83.1
749	Liquors - Malt											
	Beer	Refgr.	27.5 10/	Milwaukee, Wisc.	871	.79	474.00	353.42	22.23	265.96	641.61	135.4
	"	Refgr.	27.5 10/	Chicago, Ill.	880	.76	456.00	357.07	22.23	265.96	645.26	141.5
763	Food Products, N.O.S., in Cans and Packages - Not Frozen											
	Bakery Goods	Box	26.6	Cincinnati, O.	714	1.19	633.08	200.19	25.82	305.34	531.35	83.9
	Powdered Milk	Box	26.6	Columbus, O.	611	.72	383.04	171.31	25.82	305.34	502.47	131.2
	" "	Box	26.6	Detroit, Mich.	621	.74	393.68	174.12	25.82	305.34	505.28	128.3
	Canned Goods	Box	26.6	Davenport, Ia.	1,031	1.02	542.64	289.07	25.82	305.34	620.23	114.3
	" "	Box	26.6	Wapakoneta, O.	684	.74	393.68	191.78	25.82	305.34	522.94	132.8
767	Starch											
	Corn Starch	Box	29.9	Chicago, Ill.	880	.62	370.76	254.79	25.82	339.00	619.61	167.1
	Starch, N.O.I.B.N.	Box	29.9	St. Louis, Mo.	1,030	.75	448.50	298.22	25.82	339.00	663.04	147.8
769	Soap and Cleaning and Washing Compounds											
	Soap	Box	25.0	Ivorydale, O.	714	.95	475.00	197.03	25.82	289.02	511.87	107.8
	Cleaning Compound, N.O.S.	Box	25.0	Columbus, O.	611	.87	435.00	168.60	25.82	289.02	483.44	111.1
773	Feed-Animal and Poultry, N.O.S.											
	Feed-Animal and Poultry, N.O.S.	Box	30.2	Peoria, Ill.	978	.72	434.88	283.98	25.82	342.06	651.86	149.9
	" " " " "	Box	30.2	Lima, O.	784	.47	283.88	227.65	25.82	342.06	595.53	209.8
	" " " " "	Box	30.2	Elmwood Place, O.	714	.525	317.10	207.32	25.82	342.06	575.20	181.4
779	Containers-Metal											
	Barrels-Metal	Box	19.5	Chicago, Ill.	880	1.55	604.50	229.41	25.82	232.92	488.15	80.8
	Containers-Metal, N.O.S.	Box	19.5	Speedway, Ind.	789	1.39	542.10	205.69	25.8	232.92	464.43	85.7
	" " "	Box	19.5	Niles, O.	490	1.02	397.80	127.74	25.82	232.92	386.48	97.2
	" " "	Box	19.5	Brighton, O.	714	1.27	495.30	186.14	25.82	232.92	444.88	89.8
	" " "	Box	19.5	Pittsburgh, Pa.	426	.98	382.20	111.06	25.82	232.92	369.80	96.8
783	Containers-Fibreboard and Pulpboard KD											
	Fibreboard Boxes	Box	20.9	Cleveland, O.	552	.86	359.48	146.05	25.82	247.20	419.07	116.6
	Fibreboard Containers	Box	20.9	Petrolia, Pa.	439	.73	305.14	116.15	25.82	247.20	389.17	127.5

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Group No. (1)	Commodity Description (2)	Type of Equipment (3)	Average Weight Tons (4)	Origin (5)	Short Line Miles 1/ (6)	Freight Revenues 2/ Rate (7)	Freight Revenues 2/ Per Car (8)	Out-of-Pocket Costs Line Haul (9)	Out-of-Pocket Costs Terminal Origin (10)	Out-of-Pocket Costs Terminal Por (11)	Out-of-Pocket Costs Total (12)	Ratio of Out-of-Pocket Costs to Revenues (13)
785	Containers - N.O.S. Steel Cylinders	Box	19.3	Oakmont, Pa.	426	$.86	$331.96	$110.82	$25.82	$230.88	$367.52	110.7%
789	Scrap Iron and Scrap Steel	Gond.	30.4	Youngstown, O.	490	13.51 5/	366.12	165.63	28.15	309.88	503.66	137.6
	" " " " "	Gond.	30.4	Etna, Pa.	426	12.71 5/	344.44	143.99	28.15	309.86	482.02	139.9
	" " " " "	Gond.	30.4	Cleveland, O.	552	14.71 5/	398.64	186.58	28.15	309.88	524.61	131.6
	" " " " "	Gond.	30.4	Dayton, O.	680	16.30 5/	441.73	229.85	28.15	309.88	567.88	128.6
795	Waste Material for Remelting, N.O.S.											
	Brass - Scrap	Box	31.2	Kalamazoo, Mich.	764	.91	567.84	223.96	25.82	352.26	602.04	106.0
	" "	Box	31.2	Detroit, Mich.	621	.78	486.72	182.04	25.82	352.26	560.12	115.1
	Metal - Scrap, N.O.I.B.N.	Box	31.2	Canton, O.	526	.66	411.84	154.19	25.82	352.26	532.27	129.2
	Brass - Scrap	Box	31.2	Ashland, Ky.	649	.75	468.00	190.25	25.82	352.26	568.33	121.4
797	Waste Rubber, N.O.S.											
	Rubber - Scrap	Box	26.0	Akron, O.	540	.52	270.40	150.51	25.82	299.22	475.55	175.9
	" "	Box	26.0	Louisville, Ky.	824	.72	374.40	229.66	25.82	299.22	554.70	148.2
	" "	Box	26.0	E. St. Louis, Ill.	1,030	.80	416.00	287.08	25.82	299.22	612.12	147.1
799	Manufactures and Miscellaneous, N.O.S.											
	Welding Wire	Box	19.7	Cleveland, O.	552	.51	200.94	144.21	25.82	234.96	404.99	201.5
	Welding Rods	Box	19.7	Milwaukee, Wisc.	871	.73	287.62	227.55	25.82	234.96	488.33	169.8
	Clothing N.O.I.B.N.	Box	19.7	Shelby, O.	598	2.49	981.06	156.23	25.82	234.96	417.01	42.5
	Military Impedimenta	Box	19.7	Lordstown, O.	490	1.79	705.26	128.01	25.82	234.96	388.79	55.1
	" "	Box	19.7	Toledo, O.	658	2.29	902.26	171.90	25.82	234.96	432.68	48.0
950	Forwarder Traffic											
	All Commodity	Box	13.7 14/	Chicago, Ill.	880	1.85	555.00	215.26	25.82	173.76	414.84	74.7
	" "	Box	13.7 14/	St. Louis, Mo.	1,030	2.03	609.00	251.95	25.82	173.76	451.53	74.1
	" "	Box	13.7 14/	Indianapolis, Ind.	789	1.69	507.00	193.00	25.82	173.76	392.58	77.4
	" "	Box	13.7 14/	Cincinnati, O.	714	1.56	468.00	174.65	25.82	173.76	374.23	80.0
	" "	Box	13.7 14/	Pittsburgh, Pa.	426	1.05	315.00	104.20	25.82	173.76	303.78	96.4

NOTES: SEE PAGE 15

4717

I. & S. Docket 6615
Exhibit No. ___ (EMT-3)
Witness Talbott

Extracts from Senate Document 63 (78th Cong.; 1st Sess.)

entitled

"Rail Freight Service Costs in the Various Rate Territories of the United States - Letter from the Chairman, Interstate Commerce Commission."

Appendix A is reproduction of Chapter X of Senate Document 63, entitled "Discussion of the Concept and Application of Oct-of-Pocket Costs."

Appendix B is reproduction of Chapter XI of Senate Document 63, entitled "Review of Studies Made to Determine the Out-of-Pocket Operating Expenses, Rents and Taxes."

Appendix C is reproduction of Chapter XII of Senate Document 63, entitled "Review of Studies Made to Determine the Effect of Added Traffic on the Investment."

Appendix D is reproduction of Chapter XIII of Senate Document 63, entitled "Development of Territorial Costs Based on the Direct Distribution of the Constant Expenses."

Appendix E is reproduction of Appendix E to Senate Document 63.

Extracts from Report of Committee XXI of American Railway Engineering Association as included in AREA Manual, 1929, pages 1403-1419

Appendix F is reproduction of pages 1403-19 of said report entitled "Economics of Railway Operation."

4714

[fol. 4719]

3523

APPENDIX A

DISCUSSION OF THE CONCEPT AND APPLICATION OF OUT-OF-POCKET COSTS[14]

Review of past estimates.

Most estimates of out-of-pocket costs outlined in chapter IX ignore the long-term forces that are at work and select only the obvious items that are immediately and obviously responsive to traffic changes, such as train crews, fuel, a small part of the maintenance-of-way expenses and varying portions of the maintenance-of-equipment expenses. Station expenses, traffic and general expenses and most of the maintenance-of-way expenses were usually omitted although as will be later shown these items in the long run are substantially affected by traffic changes. Likewise, most estimates exclude any consideration of the effect of added traffic on investment despite the fact that over the long-term period the railroad plant expands and contracts, as shown hereinbelow, with the amount of work it is called upon to perform.

It is of interest to note that A. M. Wellington found difficulty in reconciling the actual records for maintenance of way and equipment expenses with his observation that substantial portions of the maintenance of way and equipment are independent of the volume of traffic. After making such observation he states: [15]

> Yet it must be admitted that there are some strange anomalies in the records of maintenance-of-way expenses which seem to indicate that such expenditures will continue to bear a nearly constant ratio to the train expenses * * *.

This same writer assumed that rentals and fixed charges were constant, although at the time of writing (1887) he noted a "great change" in the railway plant.[16]

> A great change has taken place within the past 10 or 15 years, and indeed is still in progress, in the operating expenses of railways, as a result of the introduction of certain modern improvements, and notably the steel rail. At so recent a period as the publication of the first edition of this treatise (1877) these improvements had hardly begun to tell at all upon the statistics which were available for its preparation; but they have already (1885) modified them profoundly, and where the process will end it is impossible to foresee with exactness—further than that the change will be very much more radical than even yet appears upon the surface.
>
> Besides the steel rail, there has been a great increase in the power of locomotives. The old eight-wheel American locomotive, then almost universal for freight as for passenger service, is now almost completely out of use for heavy freight service. Mogul or Consolidation locomotives are rapidly superseding it, and will in the near future almost wholly supersede it. On all but roads of very light traffic the Consolidation locomotive appears to be the engine of the future; and a still heavier type, the Mastodon locomotive, has been introduced, with excellent prospects of wider use.
>
> The capacity of ordinary freight cars has also been increased from 10 or 15 tons to 15 and 20 tons, with but a comparatively slight increase in the weight. In fact the 20-ton car has already become the standard both for coal and all other traffic, and many 25-ton and not a few 30-ton cars have been built. The movement in their favor has gone so far that a committee of the Master Car-Builders' Association has reported standard dimensions for such a car, but it is as yet regarded as exceptional, but many 25-ton cars are already in use, and it may confidently be expected that the average carload will increase for many years. It has increased fully 50 percent in the past 10 years.
>
> Still other—comparatively unimportant—changes which are gradually reducing the cost of operating are, first, the creosoting or otherwise preserving of cross ties (a practice in small but increasing use); and, secondly, the substitution of first-class ballast for what has heretofore done duty for that purpose.
>
> The almost incredibly rapid growth of traffic has been perhaps the most potent factor of all, and these causes, and the gradual fall in the cost of producing every form of manufactured commodity consumed by railways, render it impossible to predict with any certainty either the future cost of a train-mile, or the ratio which the various expenses will bear to each other. The changes of the next 10 years will probably be greater than those of the last 10, and all that we can be sure of is that the cost per ton-mile (not probably per train-mile) will continue to fall rapidly, although it hardly seems possible that it can fall quite so rapidly as in the last 10 years. * * *

Making some estimates in 1874 of the effect of the increased tonnage on the cost of transportation between New York and Chicago if a double track "steel" railroad were built, L. P. Morehouse, of the Illinois Central, observed:[17]

> The amount of business supposed above (18,000,000 tons east and 6,000,000 tons west) is undoubtedly much larger than any one railroad can transact until the facilities at the eastern terminus are vastly increased, it being well known that one reason of the inability of the existing roads to accommodate the public is the lack of means to expeditiously unload their cars in the East.

Change in variable portion of costs as traffic changes.

Many writers have pointed to the impossibility of the relationship of the variable portion of the expenses to the constant portion remaining unchanged as traffic changes. If in 1890, 50 percent of the operating expenses were variable and 50 percent were constant this same ratio could no longer hold in 1941 when the traffic measured in revenue freight ton-miles per mile of road had increased fourfold.[18] During this period the variable expenses would have increased to four times their previous total while the constant expenses remained unchanged. The new relationship of the variable expenses to the total expenses at the end of the period would be 80 percent instead of 50 percent.[19] For the old relationship to remain unchanged the so-called constant expenses would have had to increase in the same ratio as the variable expenses, in which case they themselves would be variable over the long-term period. Figures introduced hereinbelow indicate that the early estimates understate the degree to which all expenses are variable with traffic over an extended period.

Trend in operating expenses with changes in traffic.

Chart 1 shows the trend both of the transportation expenses and of the total operating expenses with changes in traffic volume.[20] It will be noted that both groups of expenses are highly responsive to the changes in traffic volume.

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[14] Data from I. C. C. Docket No. 28300, exhibit 12, ch. III.
[15] The Economic Theory of the Location of Railways (1888), p. 127.
[16] Ibid. A. M. Wellington, pp. 113-117.
[17] L. P. Morehouse, the Railroad Gazette, May 1874, p. 209.
[18] See table 46, column (4).
[19] This may be illustrated as follows: Assume 1890 variable costs to be $1,000,000, the constant costs to be $1,000,000, total equals $2,000,000. Variable portion = 50 percent. In 1941 the variable portion would be $4,000,000, the constant portion still $1,000,000 and the total $5,000,000. The variable portion now equals 80 percent of the total.
[20] The basic data appear in I. C. C. Docket No. 28300, exhibit 12, appendix A.

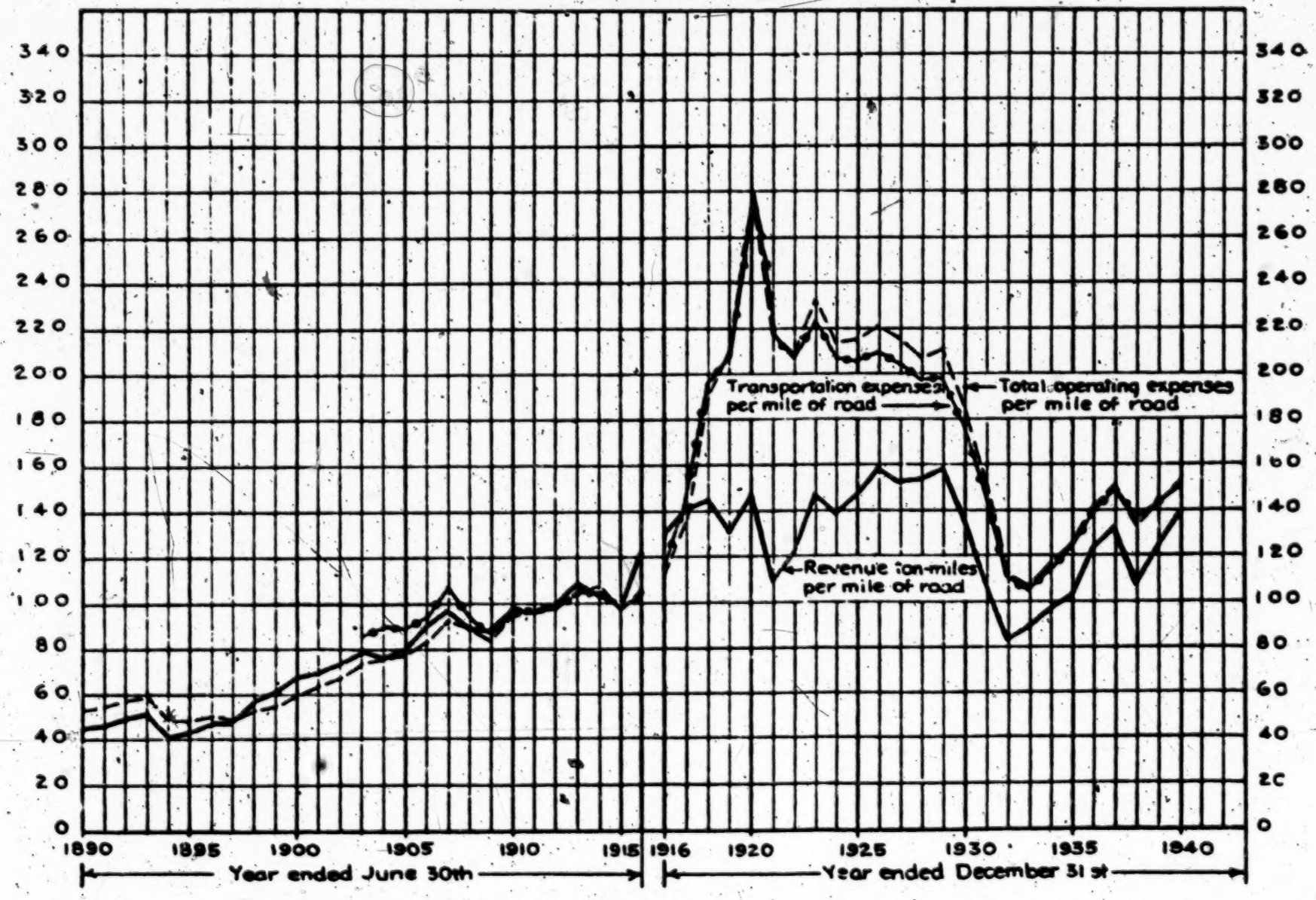
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CHART 1.

COMPARISON OF THE TREND OF REVENUE TON-MILES WITH TOTAL OPERATING EXPENSES AND TRANSPORTATION EXPENSES* (CLASSES I, II AND III

(RELATIVE FIGURES 1910-1914 = 100)



* Years 1903-1910, inclusive: All roads; Years 1911-1940: Class I roads

4724

Comparison of increased traffic per mile of road with increased expenditures per mile of road, 1890–1941.

Table 36 shows the relative increase in the density of traffic of steam railways in the United States stated in terms of revenue ton-miles, revenue tons originated, and passenger-miles, and also the increase in the expenditures by general accounts.[21] All figures were reduced to a per mile of road basis to eliminate the effect of changing road mileage. As a means of indicating the relative growth each figure was reduced to an index taking 1890 as a base except in the case of revenue tons and traffic expenses where the data for the early years were not available. An estimated trend of revenue tons based on 1890 is shown for purposes of comparison. Attention is directed to the abrupt drop in 1895 in the index for general expenses resulting from a change in the accounting classification. A better indication of the increase in this account can be obtained by using 1895 as a base.

TABLE 36.—*Comparison of the relative increase in railroad traffic and expenditures (freight and passenger) per mile of road, 1890–1941*

[Relative figures, 1890 = 100, unless otherwise indicated]

Year ended	Revenue tons originated		Revenue ton-miles	Passenger miles	Operating expenses						
	(1890 = 100)	(1)			Maintenance of way	Maintenance of equipment	Transportation, rail line	Traffic (1910 = 100)	General (1890 = 100)	General (1895 = 100)	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
June 30											
1890		100	100	100	100	100	100		100		100
1895		98	98	91	83	88	107		45	100	92
1900	109	1379	151	110	112	129	121		48	101	113
1905	119	180	177	145	130	182	137		57	126	145
1910	141	213	220	177	157	235	166	100	63	141	171
1915	131	198	221	166	154	274	180	102	70	155	186
Dec. 31											
1920	173	261	328	211	413	849	301	124	131	335	315
1925	172	260	331	185	329	676	371	178	134	342	403
1929	180	272	355	178	341	611	359	216	160	376	398
1930	185	280	304	136	282	543	319	212	167	371	347
1933	109	165	230	97	162	374	223	162	128	288	239
1939	128	193	278	121	202	435	282	191	122	270	276
1940	144	217	313	128	216	498	280	194	125	277	294
1941	173	261	400	150	293	589	333	202	133	296	351

[1] Figures for revenue tons originated are available only from 1899. See column (2). For purpose of relating the figures to a common base, column (3) assumes that the trend of tons originated between 1890 and 1899 follows the trend of revenue ton-miles over this period. Based on the experience 1900–10 this will overstate the increase in tons originated by roughly 30 percent, i. e., index of revenue ton-miles increased from 151 to 220, or by 45 percent, while index of revenue tons originated increased by only 41 percent. Following 1900 the trend is the same as shown in column (2).

It will be noted that an increase of 255 percent in the revenue ton-miles per mile of road between 1890 and 1929 was accompanied by an increase of 298 percent in the total operating expenses per mile of road. The increases by general accounts were maintenance of way, 241 percent; maintenance of equipment, 541 percent; transportation, 259 percent; and general expense, an estimated 276 percent.[22] For the period shown the traffic expenses increased at a rate only a little below that for general expenses. Although a true comparison cannot be made without adjusting the figures for price level changes,[23] the conclusion can be drawn that all the operating expenses are affected in substantial degree by added traffic.

This conclusion is further supported by the data in Table 37 showing the percent that each general account constitutes of the total operating expenses.[24] Had the maintenance of way, maintenance of equipment, traffic, and general expenses been largely constant, as indicated in most out-of-pocket cost estimates, they would have constituted an ever-decreasing percentage of the total expenses over a span of years when traffic was increasing. Actually, however, during the period from 1910–15 to 1929, when the traffic was rising, the ratio of the expenses for each of these groups to the total either remained relatively constant, or, as in the case of maintenance of equipment, increased. The transportation expenses on the other hand decreased slightly relative to the total expenses. While changing price levels may have affected different accounts in different degrees, nevertheless the ratio that each group of expenses bears to the total has been surprisingly constant.

The explanation offered is that over the long-term period different forces come into play than are present over the short-term fluctuations. Train-miles and train expenses, for example, are greatly affected by short-term fluctuations in traffic volume, but over the long-term period the effect of ever-increasing train efficiency comes into play and tends to offset in some degree the effect of added traffic thus making the transportation expenses over the long term less variable with added traffic than they would otherwise be.

TABLE 37.—*Percentage relationship of primary groups of accounts to total operating expenses, 1890–1941*

Year	Maintenance of way	Maintenance of equipment	Traffic	Transportation rail line	Transportation water line	Miscellaneous operations	General	Transportation for investment, Cr.	Unclassified	Total
1890 [1]	22.05	16.48		51.18			10.15		0.13	100
1895 [1]	19.84	15.68		50.41			4.95		.12	100
1900 [1]	21.97	18.94		53.01			4.09		.08	100
1905 [1]	19.78	20.71		55.46			3.98		.04	100
1910 [1]	20.22	22.66	3.07	50.29			3.76			100
1915 [1]	18.25	24.32	2.80	49.54	0.41	1.12	3.80	0.33		100
1920 [1]	17.86	27.14	1.26	49.79	.21	1.05	2.97	.09		100
1925 [1]	17.97	27.61	2.31	47.13	.21	1.19	3.87	.29		100
1929 [1]	18.93	26.53	2.85	46.24	.17	1.29	4.31	.32		100
1930 [1]	17.92	25.57	3.21	47.06	.16	1.33	4.88	.33		100
1933 [1]	15.16	26.14	3.59	48.42	.14	1.17	5.52	.14		100
1939 [1]	16.09	25.04	3.62	48.60	.17	1.27	4.46	.15		100
1940 [1]	16.15	26.18	3.45	48.62	.21	1.23	4.30	.14		100
1941 [1]	16.51	26.73	3.02	48.64	.08	1.27	3.83	.10		100
1890 [2]	22.05	16.48		51.18			10.15		0.13	100
1895 [2]	19.84	15.68		50.41			4.95		.12	100
1900 [2]	21.97	18.94		53.01			4.09		.08	100
1905 [2]	19.78	20.71		55.46			3.98		.04	100
1910 [2]	20.22	22.66	3.07	50.29			3.76			100
1915 [2]	18.25	24.32	2.80	49.54	0.41	1.12	3.80	0.33		100
1920 [2]	17.86	27.14	1.26	49.79	.21	1.05	2.97	.09		100
1925 [2]	17.97	27.61	2.31	47.13	.21	1.19	3.87	.29		100
1929 [2]	18.93	26.53	2.85	46.24	.17	1.29	4.31	.32		100
1930 [2]	17.92	25.57	3.21	47.06	.16	1.33	4.88	.33		100
1933 [2]	15.16	26.14	3.59	48.42	.14	1.17	5.52	.14		100
1939 [2]	16.09	25.04	3.62	48.60	.17	1.27	4.46	.15		100
1940 [2]	16.15	26.18	3.45	48.62	.21	1.23	4.30	.14		100
1941 [2]	16.51	26.73	3.02	48.64	.08	1.27	3.83	.10		100

[1] All roads reporting to the Interstate Commerce Commission.
[2] Classes I, II, and III, including switching and terminal companies.
[3] Class I and switching and terminal companies.
[4] Classes I, II, and III (line haul and switching and terminal companies.

This is illustrated in chart 2 showing the long-term increase in revenue ton-miles per mile of road, the steady decrease in train-miles per mile of road, and the constant increase in revenue net ton-miles per train-mile realized through the use of heavier trains and power.[25] The results would indicate that this increase in train efficiency through the use of heavier trains and heavier motive power has been accomplished at the

[22] Supporting data appear in I. C. C. Docket No. 28300, exhibit 12, appendix B.
[23] General expense related to 1895 = 100.
[24] I. C. C. Bureau of Valuation's Railroad Construction Indexes which provide a general indication of the changes in price level 1915–41 and statement of the Commission concerning relative prices for 20 years prior to 1910–14 appear in I. C. C. Docket No. 28300, exhibit 12, appendix C.
[25] Supporting data appear in I. C. C. Docket No. 28300, exhibit 12, appendix D.
[26] Supporting data appear in I. C. C. Docket No. 28300, exhibit 12, appendix E.

4722

[101, 4722]

Revenues, Out-of-Pocket Costs and Ratios
Representative Movements of
Export Traffic Originating in Differential Territory
via
Port of New York

NOTES:
1/ Excludes 10 Mile Arbitrary under Appendix K, Docket 15879, Eastern Class Rate Investigation
2/ Rates and Revenues via Baltimore
3/ Applies per 2,000 Pounds
4/ Minimum Weight 70,000 Pounds
5/ Applies per 2,240 Pounds
6/ Applicable via New York Central R.R. direct
7/ Applicable via lines other than the New York Central R.R. direct
8/ Minimum Weight 40,000 Pounds
9/ Excess of 40,000 Pounds per item 3 - A.T.E.A. Section 22 Quotation A-1706-A
10/ Minimum Weight 60,000 Pounds
11/ 120 United inches or under
12/ Exceeding 120 United inches
13/ Minimum Weight 24,000 Pounds
14/ Minimum Weight 30,000 Pounds
15/ Minimum Weight 50,000 Pounds
16/ Minimum Weight 27,000 Pounds
A/ Minimum Weight 15,000 Pounds for cars not exceeding 50 feet 7 inches in length
B/ Minimum Weight 12,500 Pounds for cars not exceeding 50 feet 7 inches in length
C/ Minimum Weight 20,000 Pounds for cars exceeding 50 feet 8 inches in length

1718

expense of maintenance accounts, particularly maintenance of equipment, which over the long-term period are substantially affected by added traffic.[*]

Reason for part of costs remaining constant with traffic change.

The failure of costs to rise as rapidly as the traffic volume is attributable to two factors, first, the use of the carriers' unutilized capacity, and secondly, the increasing efficiency of the larger plant as compared to the smaller plant as the facilities are expanded. The orthodox explanation of the existence of constant costs is based on the first of these, namely, unutilized capacity. However, in an industry which has long since utilized the original excess capacity with which it started and which, in fact, has from time to time substantially expanded its capacity to handle added traffic, the principle of unutilized capacity loses some of its earlier significance.

M. O. Lorenz has pointed out in this connection as follows:[7]

> * * * there has been an overemphasis of the gain which results merely from a more complete utilization of plant and that the gain which has been realized from more improved methods, such as the use of heavier locomotives, is the more important after railroads have passed the stage of infancy. Perhaps we have here an illustration of the fact that to a considerable extent economic theory is a reflex of past economic conditions because a theory once generally accepted persists long after the conditions which have produced it have changed.

Over the short-term period the constant costs owe their existence principally to unutilized capacity, but over the long-term period the unutilized capacity of most of the original plant has long since been exhausted.[8] The apparent constancy of a portion of the costs as traffic increases springs from the greater efficiency obtainable from the use of a more costly and at the same time a more efficient plant.

Effect of small increments of traffic.

The view is sometimes expressed that "one more car" will cost little if anything more to handle, or that every train has some unused capacity which will enable it to take added traffic without added cost. This view overlooks the fact that the car thus singled out is no different from all other increments of traffic, the cumulative effect of which has a very great influence on costs.

The reason for the variation in the expenses is that as the traffic increases by small increments it is continuously taxing the capacity of the existing railroad staff or facilities to handle it. Yard crews, yard clerks, station clerks, platform labor, train crews, engine crews, dispatchers, shop forces, enginehouse forces, rolling equipment, etc., are constantly added to meet the demands of increased traffic, and then reduced or withdrawn as the demand falls away. An analysis of the rise and fall of railroad traffic both on a seasonal and on an annual basis indicates that this process of change is ever present.

Some items of expense, such as locomotive fuel, trainmen, enginemen, and yard crews, show a relatively high degree of response to changes in the volume of traffic. Other items such as superintendence, dispatching, station expenses, enginehouse expenses, and traffic and general expenses will increase and decrease in some measure as the traffic volume changes although the adjustment to the change in traffic is irregular. This is occasioned in part by the lag that may exist between the time the change in the volume of traffic occurs and the period when management can effect an adjustment of the expenses; and in part by the fact that any given size of staff can handle changes in traffic volume within a limited range, and as long as that range is not exceeded the expenses remain unaffected. When the change in the volume of the traffic exceeds the limits of this range, the expenses may rise or fall abruptly. A study of the expenses for class I carriers incurred during various years and for periods of different traffic volume indicates that there are relatively few expenses which are not influenced in some degree by an increase or decrease in the traffic.

The above discussion has dealt with the mass effect of increases or decreases in the traffic volume upon a carrier's expenses. Question may arise as to the out-of-pocket cost for handling a single additional carload. From the discussion that follows, the conclusion is reached that on the average it is no different from that for mass changes in traffic volume. Traffic conditions are never static on a railroad, the traffic volume being in a continuous state of flux. Furthermore, the changes in volume from month to month and year to year are seldom so limited in their range that the expenses remain unaffected. This condition being true, the effect of one added unit of traffic is no different from that of any other added unit. For example, if the receipt of 10 added tons of less-carload traffic occasions the employment of one added station platform trucker, one cannot place any more responsibility for this increased expense upon the tenth ton than upon the first ton. Each ton contributes equally in increasing the work up to that point which necessitated the additional employee. Similarly, if the receipt of 10 added carloads requiring industry switching required the assignment of an additional yard-engine crew, each one of these 10 carloads is equally responsible for building up the work to a point where such added crew was necessary. The responsibility for the change in the expenses must be shared equally by each increment of traffic that contributed to the increase or decrease in the expenses.

Ripley states in this connection:[9]

> The moment the old traffic has outgrown the existing plant, the new expenditure becomes chargeable to all the business alike. The new outgo must be distributed evenly over the entire volume of traffic thereafter hand[led]. Each ton, both of old and of new traffic, beyond the haulage capacity of the locomotives then in service, is equally responsible for the expense of new equipment purchased. Although the old business could have been handled without a million dollars spent for double-tracking or terminal enlargement, this addition to the expense of maintenance of way or to the fixed charges is equally attributable to every ton of traffic hauled.

[*] New estimates make allowance for the added road investment in double tracks, longer sidings, yards, etc., required by increased traffic, the total maintenance of which in the long run is 100 percent variable. If added traffic required this added trackage, 100 percent of the maintenance of such trackage, including both that which is worn out through use and that which rots out or rusts away through the action of the elements should be included in the out-of-pocket cost. If the added traffic had not been handled this maintenance would not have been incurred. If the traffic declines to a point where the added facilities are no longer necessary and may be retired or at least not renewed when their service life expires, the maintenance costs (with some lag) will disappear.

M. O. Lorenz has stated in this regard (Costs and Variable Railroad Expenditures and the Discount Tariff, Quarterly Journal of Economics, vol. 24, February 1907, p. 208): "Is the rotting of the ties a constant expense? Certainly not. Is not the rotting of the ties more [or] less proportionate to the traffic [one-half or not, it would seem necessary to modify the] mathematical answer. But the fact that an expenditure once incurred cannot be put to another use should not blind us to the fact that but for the prospect of the increased traffic some of the ties would not have been laid; namely, those under the second, third, or fourth tracks."

[7] Quarterly Journal of Economics, February 1910, vol. 20, p. 211.

[8] Land used for right-of-way between terminals may be considered as relatively constant but this accounts for a very small percent of the total valuation. (Approximately 15 percent of the valuation of carrier property is in land and but a very small fraction of this is outside incorporated towns and cities of 2,500 population.)

[9] Railroads, Rates and Regulation, William Z. Ripley, 1913, pp. 57-58.

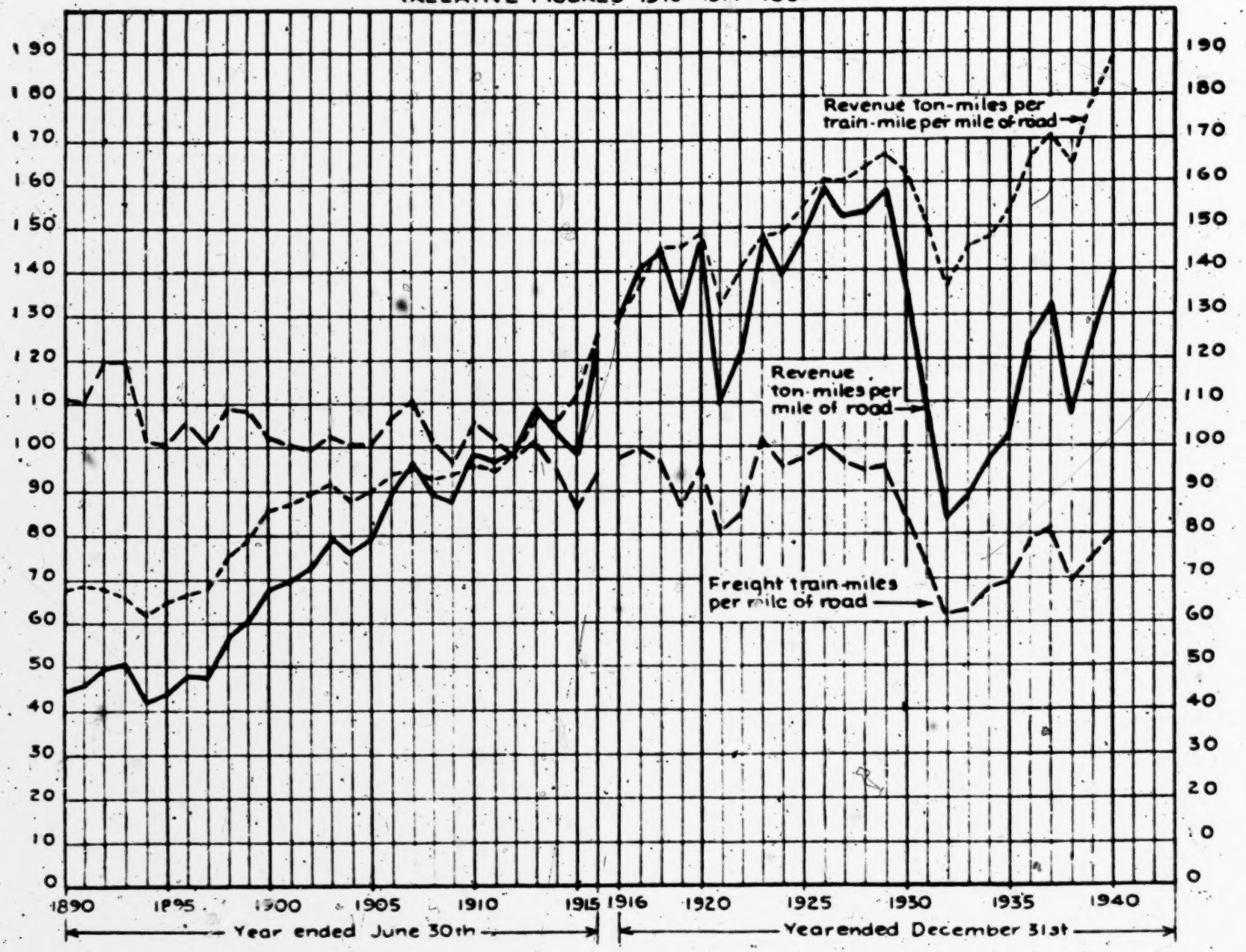
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CHART 2

COMPARISON OF THE TREND OF REVENUE TON-MILES WITH FREIGHT TRAIN-MILES AND REVENUE TON-MILES PER TRAIN-MILE

(RELATIVE FIGURES 1910 - 1914 = 100)



4724

Variable costs as affected by volume of traffic.

To sum up, small increments of traffic will have little or no effect on railroad costs only so long as the effect of such traffic, when combined with the effect of all other traffic increases or decreases incurred at the same time or in subsequent periods, does not occasion a change in the operating expenses or the investment. As such a state of equilibrium practically never exists in the transportation field, or if it does exist, it is for an extremely short period of time, the concept that one more car can be handled at little or no added cost is of very limited value for rate-making purposes.[30] Where very large blocks of traffic are under study the effect on the costs and investment is more obvious but in the long run the cumulative effect of many small increments is the same.

Out-of-pocket costs vary with density.

On lines of heavy traffic density the maintenance of way, maintenance of equipment, and transportation expenses closely follow the volume of traffic. The trains are usually operated to the capacity of the motive power (scheduled time considered) with the result that added traffic occasions a near proportionate increase in train expenses. Thus the out-of-pocket portion of the expenses on lines of dense traffic is greater than on lines of light traffic density or on branch lines.

On the latter lines, a change in traffic within certain limits may affect the expenses to only a limited degree. Even here, however, costs may be variable to a much higher degree than is usually realized. Even though the service is reduced to one train a day each way, one can consider this expense as constant only for a limited range in traffic. Added traffic will certainly occasion added train-switching time if not added running time, with a resultant increase in the train and engine crew compensation.[31] If the increase is great enough, extra trains may be operated either occasionally or regularly. If traffic declines, weekly or triweekly service may be substituted for daily service and when this is no longer warranted the service may be operated on a seasonal basis or "on call." If the traffic decline is sufficiently severe the operation will be abandoned entirely. The standard of maintenance also may be varied. Hence, over an extended period of time even the branch-line operations may become variable with traffic change to a degree greater than is commonly considered.

Out-of-pocket costs should be computed for all traffic to which rates apply.

In determining the out-of-pocket costs of handling a given volume of traffic the study should embrace or take into consideration all of the traffic to which such rates will apply. Assume that a study is made of the out-of-pocket cost of handling added tonnage in less-than-carload cars, such added tonnage being induced by a sharp decrease in rates. If the application of the reduced rates can be limited to the added traffic (a condition which seldom obtains) the answer turns upon whether the added cost for handling the added tons will equal the added revenues. If the cars are operated to only a fraction of capacity, say 3 tons, the short term out-of-pocket costs may be limited to platform handling, station clerical and billing expense, a small increase in the fuel expense, and loss and damage.[32] If the traffic increase required the operation of additional less-than-carload cars or the operation of cars to points not previously served, the out-of-pocket costs will include a much larger portion of the total expenses.

If the added traffic is obtained only at the price of a rate reduction on part or all of the less-than-carload traffic already moving (a condition which usually obtains), the problem becomes that of determining the out-of-pocket cost of handling the entire traffic to which the rate reduction applies, including both the newly acquired traffic and the traffic already moving.

Where the traffic under study constitutes substantially the total traffic a carrier handles on a portion of its system, the out-of-pocket costs constitute practically 100 percent of the cost of operating and maintaining the lines affected.[33] Branch lines serving coal mines are an illustration of this situation. Where a carrier's entire system traffic is under study the carrier's total costs constitute the out-of-pocket cost of handling the traffic.[34]

Part of railroad operations subject to increasing costs.

As stated hereinabove, the reduced costs attributed to added volume may be credited both to a more complete utilization of the existing plant and to the increased efficiency of a large plant over a small one. Not all the railroad plant, however, is subject to the law of increasing returns. For example, less-carload platform costs tend to rise rather than fall with the long term increase in traffic. This is illustrated by table 38 showing the results of a study made by the California Railroad Commission showing the platform costs per ton at stations having various volumes of less-carload tonnage.[35]

[30] Even where an apparent stability exists as a result of a relatively fixed volume of traffic and little change in expenses, the forces at work are still the same. As W. M. Daniels has aptly stated in another respect: "* * * to argue that stabilized rates * * * evidence the non-existence of competition is analogous to saying that physical bodies in equilibrium argue the absence of the law of gravitation." Economic Progress and Limitations of Consolidation; 11 American Economic Review [illegible]

[31] Way freight compensation is usually on an hourly rather than on a mileage basis as crew time commonly exceeds 8 hours but the miles run are less than 100.

[32] The interest of the Commission in the matter may not stop here even though the rates on the added tonnage more than cover its out-of-pocket cost. Question may arise as to whether the less-than-carload car as a whole is earning sufficient revenue to cover its out-of-pocket costs, irrespective of whether the added revenue from the added tonnage covers the specific added costs such tonnage incurred. It is possible for the additional revenue from added less-than-carload traffic to exceed the added costs although at the same time the operation of the car as a whole is a burden on other traffic.

[33] In *Lake Cargo Coal* (1928) 130 I. C. C. 367, 379, the Commission stated: "Protestants criticize the out-of-pocket costs as understated and point to a number of inconsistencies and unexplained discrepancies in the results obtained. Suffice it to say in respect of those costs that we cannot accept out-of-pocket costs alone, no matter how accurate, as justification for proposed rates when the movement thereunder would represent such a large proportion of the total freight traffic transported by proponents as would be the lake-cargo tonnage which would move under the proposed rates of the total freight traffic handled by the Chesapeake & Ohio."

[34] Study of Rail Cost Finding for Rate-Making Purposes, Case 4902, California Railroad Commission, 1918, pp. 109-110.

[35] The term "out-of-pocket cost" as here used includes both the costs which are variable with the traffic volume and the constant costs which are solely related to the traffic under study. See discussion to follow concerning constant costs which are comparable between carload, less-carload, and passenger services.

[fol. 4725]

4725

TABLE 38.—*Station platform costs for handling less-carload tonnage*

[Figures for May 1938, except as noted]

Line No.	Stations	Carrier	Less carload tonnage		Cost per ton
			Total	Transfer	
1	San Francisco	Southern Pacific	25,550	5,373	$1.60
2	Los Angeles	do	16,686	6,466	1.28
3	do	Santa Fe	5,441	1,222	1.20
4	San Francisco	do	4,103	68	.98
5	Los Angeles	Pacific Electric	4,028	1,798	1.60
6	Fresno	Southern Pacific	3,540	1,670	.83
7	San Francisco	Western Pacific	3,507	304	1.04
8	do	Northwestern Pacific	3,005	1,273	.91
9	Los Angeles	Union Pacific	2,504	762	1.09
10	Stockton	Southern Pacific	2,325	183	.80
11	Fresno	Santa Fe	2,031	(1)	.90
12	San Diego	do	1,526	(1)	.75
13	Bakersfield	Southern Pacific	1,237	475	.64
14	Oakland (40th St.)	Santa Fe	1,225	(1)	.73
15	Barstow	do	1,035	(1)	.69
16	San Bernardino	do	1,004	(1)	.75
17	Bakersfield	do	851	(1)	.71
18	Stockton	do	770	(1)	.65
19	Richmond	do	562	(1)	.61
20	Tulare	Southern Pacific	550	375	.55
21	Gallup	Santa Fe	442	(1)	.38
22	Needles	do	291	(1)	.29

[1] Cost figures based on 3-day midweek check.
[2] Not obtained.

The California study made the following explanation concerning the trend of platform costs with increased traffic:

> It is quite evident that platform costs do not follow the general rule that the greater the volume the lower the cost, as the reverse is true here. Within the limits of any given size of shed an increase in the tonnage undoubtedly lends itself to a decrease in the costs, but when the capacity of this shed is reached and an enlarged facility is required, the costs go up. At San Francisco, for example, the Southern Pacific's four huge sheds cover an area, including trackage between sheds, which is 1,400 by 200 feet, and the tonnage must be trucked anywhere from 50 to 1,400 feet. The average distance is probably five times greater than that in the case of smaller stations. This fact, coupled with the congestion occurring just prior to the closing hours when most of the out-going traffic is received, accounts for higher cost at this station. At the Northwestern Pacific station in San Francisco, operated by the same management, the costs are in line with those for stations handling a comparable tonnage.

The above observations concerning the long-term behavior of platform costs may be extended to other direct terminal expenditures. For example, an average of between 15 and 20 yard-engine switching-minutes may be required to originate or to terminate a carload of traffic at a small terminal as compared to figures of from 30 to 40 or more minutes required at the larger terminals. Where the long-term effect of added traffic results in an increase in the size of the switching district, the costs per car originated or terminated may be increased.[38]

Relation of added traffic to price level.

A characteristic of long-term changes in traffic volume is that material prices and wage rates tend to change in the same direction. For example, the traffic increase between 1915 and 1930 was accompanied by increases in wages and prices of materials. The traffic decrease during the period 1930–34 was accompanied by wage cuts and falling prices; the increase between 1934 and 1939 was followed by the restoration of old wage levels and finally, the further traffic increases of 1940–41 have been accompanied by still further advances in wages and material prices. Unless adjustment is made for these changes in wage rates and price levels, an analysis of the traffic and expenses will show a relationship between the two which distort the true relation between variable and constant expenses. The problem of changing wages and price adjustments is one affecting all traffic and not merely the added traffic under study. It has been met several times in the past by blanket rate adjustments and probably will continue to be handled in this manner in the future. Separation of the expenses between variable and constant should be divorced from the effect of changes in price level.

Some constant costs are separable between carload, less-carload, and passenger services.

Some costs may be relatively constant for variations in the volume of traffic handled, but at the same time be variable when the total cost of a given service is under consideration. For example, small variations in passenger traffic may have little influence on the maintenance and investment for passenger stations, yet a computation of the out-of-pocket cost of handling all passenger traffic should include such costs as the facilities would be eliminated if the service were not in existence. Likewise, small variations in less-carload traffic may have a relatively small effect on the maintenance and investment required for less-carload warehouses, yet the out-of-pocket cost of handling all less-carload traffic should include these costs. Similarly, an out-of-pocket cost of handling small additions to refrigerated traffic may have a relatively small effect on the present investment in the special refrigeration facilities used, yet a study of the out-of-pocket cost of handling all refrigerated traffic should include 100 percent of the cost of such facilities.

The same principle is widely applied in abandonment proceedings. The out-of-pocket cost of handling added traffic on a branch line will include something less than the total expenses for maintenance of way and structures whereas the out-of-pocket cost of operating the branch line in its entirety must include the total maintenance of way expenses. For the reasons illustrated above a distinction should be made between the out-of-pocket cost of handling the added traffic and the out-of-pocket cost of operating the service as a whole. The latter includes expenses which, so long as a minimum service was offered at all, would be considered as constant. For purposes herein such expenses have been referred to as "constant expenses solely related to the service." These expenses are necessary to the computation of the deficit incurred by any service or the contribution which it makes to the remaining constant expenses. Constant expenses which are indispensable to all services and which would continue so long as any rail service whatsoever was rendered are referred to as "constant expenses common to all services."

Summary.

In the long run every item of expense is variable with traffic changes. However, all items do not increase or decrease in direct proportion. The problem is to separate each expense item between its variable and constant components. The amount found variable depends upon several factors such as the amount of

[38] The tendency of terminal costs on the English railroads to rise while the transportation line-haul expenses decreased was noted over 50 years ago by Hadley when he pointed out that "while train expenses per ton moved have decreased enormously, the station expenses have on the whole risen. In some cases they have risen enormously." Railroad Transportation, Arthur T. Hadley (1885), p. 179.

3530 [fol. 4726]

4726

the traffic change, the length of the period under study, the present density of the traffic, etc.

The answer is also influenced by the purpose for which the study will be used. For rate-making purposes the long-trend view is usually that which should obtain. If the short-term view is used and the low out-of-pocket rates resulting therefrom encourage added traffic to such a degree that added maintenance, transportation, or capital expenses are required over and above those contemplated when the out-of-pocket costs were being estimated, such traffic then becomes a burden on other traffic and remains so as long as it continues to move. J. M. Clark pointed out in this respect:[37]

> To set the minimum at half the operating expenses is clearly wrong, in the light of the foregoing study, since this is applicable only to seasonal rates made to stimulate off-peak business—a type of discrimination which is virtually nonexistent and has nothing to do with the long-and-short-haul clause. To disregard investment costs and indirect operating expenses is equally wrong, in the typical case, for the typical case involves a general rate policy, which, if it is consistently followed, will call forth considerable volumes of traffic, which will in turn involve an increase both in indirect operating expenses and in investment. What should be reckoned is the long-run differential cost of growth of traffic, taking for granted that it will grow for an indefinite time and in very considerable amount, and that the railroad which has brought this traffic into being cannot afterward refuse to handle it, nor hamstring it by raising rates to an extent which would cripple the shippers.

[37] The Economics of Overhead Costs, J. Maurice Clark, 1923, pp. 281-282.

There are occasions, however, where the short-term view is applicable as, for example, in those situations where a railroad reduces its rates to an out-of-pocket cost basis to attract additional traffic on a branch line the revenues from which are insufficient to maintain the property. Such out-of-pocket costs may exclude most of the charges for maintenance-of-way as well as all allowances for return on value. Such reduced rates are, of course, economically justifiable only up until such time as the property "falls apart" from deferred maintenance. While the out-of-pocket cost in such case falls short of a measure of the long-term ability of the carrier to render the service, the procedure may encourage the maximum utilization of the plant up to the time when it must be abandoned.

[fol. 4727]

4727

APPENDIX B

REVIEW OF STUDIES MADE TO DETERMINE THE OUT-OF-POCKET OPERATING EXPENSES, RENTS AND TAXES[38]

The purpose of this chapter is to summarize the results of the studies made to determine that portion of the operating expenses, rents, and taxes, which are variable with traffic volume.

Previous studies[39] as to the effect of year-to-year traffic changes have been brought up to date through 1941. The data have been expanded to include minor transportation accounts that were omitted from the previous studies, maintenance of way, and maintenance of equipment. Table 39 summarizes the results.[40] The figures shown in column (6) are those used by the Bureau of Transport Economics and Statistics in computing the out-of-pocket costs introduced in this proceeding. The percentages used for some of the minor accounts were based on estimates, as studies, such as those summarized below, had not been completed at the time the cost study was made.

TABLE 39.—*Out-of-pocket expenses based on a 6-year study of the effect of year-to-year variations in operating expenses with changes in traffic volume (1935–41)* [1]

Line No.	Item	Percent variable with gross ton-miles: United States	Eastern district	Southern district	Western district	Percent used
	(1)	(2)	(3)	(4)	(5)	(6)
	Service units (1929–41)					
1	Revenue net ton-miles	120	120	116	123	....
2	Car-miles	90	86	88	91	....
3	Train-miles	76	80	78	72	....
4	Yard switching, locomotive hours	95	107	88	88	....
	Maintenance of way (1935–41)					
5	Accounts 202 21—Track expenses	88	124	62	67	[2] 73
6	Account 275—Insurance	17	51	7	(3)	50
7	Accounts 201–281—Total maintenance of way	77	99	70	63	[2] 86
	Maintenance of equipment					
8	Accounts 308–314—Repairs to motive power and freight-train cars	119	153	70	101	100
9	Accounts 301–338—Total maintenance of equipment	82	106	49	67	[2] 92
	Traffic expenses					
10	Accounts 351–359—Traffic expenses	23	18	32	26	20
	Transportation—Rail line					
11	Account 371—Superintendence	37	37	40	45	50
12	Account 372—Dispatching	48	45	43	53	50
13	Account 373—Station employees	59	60	59	48	50
14	Account 375—Coal and ore wharves	274	243	130	436	20
15	Accounts 377–387, 389—Yard expenses (excluding engine-house expenses)	89	97	81	81	100
16	Accounts 388, 400—Enginehouse expenses	64	66	69	66	75
17	Accounts 392 399, 401, 402—Train expenses excluding enginehouse expenses	92	100	93	94	100
18	Account 404—Signal and interlocker operation	24	28	36	30	25
19	Account 405—Crossing protection	20	17	61	21	25
20	Account 406—Drawbridge operation	17	9	25	17	....

[1] Data by annual periods appears in I. C. C. Docket No. 28300, exhibit 12, appendix E. Study of service units based on period 1929–41.

[2] Figures shown are based on ratio of total United States out-of-pocket costs to all costs for accounts indicated. The out-of-pocket costs were computed by applying to each separate account the percentages shown in appendix E hereto.

[38] Data from I. C. C. Docket No. 28300, exhibit 12, ch. IV.

[39] See I. C. C. Docket No. 28300, exhibit 2, appendix D.

[40] Supporting detail appears in I. C. C. Docket No. 28300, exhibit 12, appendix F.

TABLE 39.—*Out-of-pocket expenses based on a 6-year study of the effect of year-to-year variations in operating expenses with changes in traffic volume (1935–41)*—Continued

Line No.	Item	Percent variable with gross ton-miles: United States	Eastern district	Southern district	Western district	Percent used
	(1)	(2)	(3)	(4)	(5)	(6)
	Transportation—Rail line—Continued					
21	Account 407—Telegraph and telephone operation	40	14	46	54	20
22	Account 408—Operating floating equipment	91	80	23	12	50
23	Account 410—Stationery and printing	105	102	100	101	20
24	Account 411—Other expenses	87	88	(3)	60	20
25	Account 412—Operating joint tracks and facilities—Dr	51	28	80	31	50
26	Account 413—Operating joint tracks and facilities—Cr	32	18	72	53	50
27	Account 414—Insurance	57	59	91	89	50
28	Account 415—Clearing wrecks	177	104	139	148	100
29	Account 416—Damage to property	93	112	116	43	100
30	Account 417—Damage to livestock	46	53	28	48	100
31	Account 418—Loss and damage—Freight	63	79	42	100	100
32	Account 420—Injuries to persons	86	82	67	77	100
33	Accounts 371–420—Total transportation expenses	82	86	75	80	85
	General expenses					
34	Accounts 451–462 (excluding 457)—General expenses, excluding pensions	27	30	32	25	80

[3] No relationship. Expenses decreased as traffic increased.

Comments on study of out-of-pocket costs.

It will be noted from table 39 that the revenue net ton-miles are over 100 percent variable with gross ton-miles thus indicating that periods of rapidly rising traffic result in a more efficient use of the equipment through heavier loading, and a reduction in the percent empty return of equipment. In an individual case where the cost of handling added traffic is at issue and such added traffic did not result in a heavier loading per car or a reduction in the empty return of the equipment this factor would not be operative.

The assumption that yard-engine hours are directly proportional to changes in traffic volume is fairly well supported based on the short-term approach used above. The percent variable for the Eastern, Southern and Western districts are 107, 88, and 88, respectively. The figure for the entire United States is 95. In the case of train-miles the figures are 80, 78, and 72 for the three districts and 76 for the United States. The effect of increased traffic on units of yard-engine hours and train-miles fails, however, to reflect the added expenses arising from congestion, delays, and overtime that added traffic volume may bring, or the higher pay scales following the use of heavier motive power. These factors are reflected in the charges to the appropriate transportation accounts after correction for wage changes. The figures for the yard service accounts 377–387 and 389 are 97, 81, 81 and 89, respectively. The figures for the train-service expenses, accounts 392–399 and 401–02, are 100, 93, 94, and 92. These figures fluctuate from year to year but the amounts shown in table 39

reflect the central tendency. The yard and train expenses are close to 100 percent variable. Inasmuch as the train-miles and train expenses on branch lines receiving a minimum of service may be affected by changes in traffic to a lesser degree than the main-line operations, the figures quoted, being an average of both, are high for branch lines of light density and a little low for main-line operations. The Bureau's use of a figure of 50 percent for station expenses understates the short-term variability of this account in 2 of the 3 districts, the figures being, Eastern 60, Southern 59, Western 48, and total United States 59.

Many minor accounts such as the operation of coal and ore wharves (account 375), telephone and telegraph operation (account 407), operating floating equipment (account 408), other expenses (account 411), loss and damage freight (account 418), etc., were actually either more variable or less variable over the short-term period than the percentages used in computing the out-of-pocket for the purposes of this proceeding. These accounts do not significantly affect the total.

Of interest are the figures shown for maintenance of way and structures and maintenance of equipment. The variation of the maintenance-of-way expenses with changes in traffic volume are much greater than the carriers generally recognize.[41] Some of this may be occasioned by deferred maintenance, although the carriers generally have taken the position in the recent past that there was little deferred maintenance on their systems considering the needs of the traffic. Over an extended period of rising traffic this explanation would not be complete. The same general observations may be applied to the trend of the maintenance of equipment expenses which closely follow the trend in traffic volume. At the same time it should be observed that a contributing cause for the high percentage found variable for maintenance is the custom of sharply reducing maintenance budgets when traffic starts to decline and of correspondingly increasing the budget when the traffic is regained. The result is to show a relationship between traffic and expenses which is greater than the true relation between the added traffic volume and the added wear and tear occasioned by that traffic. On the other hand, the maintenance of equipment expenses as a whole may give an appearance of stability which is more apparent than real as a result of the annual charges for depreciation remaining relatively constant over short periods of time. Over the long-term period the depreciation will be affected by changes in traffic volume. The traffic handled is a controlling factor in a carrier's investment in equipment.

The percentages actually used by the Bureau for Maintenance of Way, as noted in appendix E, were based on studies made by the Engineering Section of the Bureau of Valuation. The percentages used for maintenance of equipment were based on the assumption that although there exists a continuous drive toward more effective utilization of equipment, nevertheless, the carrier's ownership of motive power and freight-train cars will adjust itself, with some lag, to its traffic needs, allowance for reserves included.

[41] Studies of the California Railroad Commission of the relation of maintenance-of-way expenses to traffic volume indicated that prior to 1929 such expenses were 30 percent variable, between 1930 and 1932 they were well over 400 percent variable (reflecting sharp retrenchments), and that between 1933 and 1936 they were 65 percent variable. This was accompanied (in 1935-36) by a decrease of approximately 40 percent in the total maintenance-of-way expenses as compared to that spent in handling the same volume of traffic (gross ton-miles) prior to 1929. Most of this decrease occurred in the constant portion of the maintenance-of-way expenses. (Study by California Railroad Commission entitled "Rail Cost Finding for Rate-making Purposes, Case 4407," ch. XV, chart 8. Studies were based on experience of the Southern Pacific, Pacific Lines.)

Out-of-pocket costs based on table 39.

As previously noted the percentages used by the Bureau are in some cases higher and in some cases lower than the 6-year averages shown in table 39. The reasons for the variations in the case of maintenance of way and maintenance of equipment have been noted above. As a matter of information table 40 shows the results of applying, with some exceptions, the percent variable for each general account shown in table 39. A round figure of 90 percent is applied for all maintenance of equipment expenses on the belief that any lower percentage represents the short-term experience only. In the case of maintenance of way a simple average is taken of the figure previously used by the Bureau (56 percent) and the results of the year-to-year variations for each territory shown in table 39.[42] The justification offered for this procedure is that it serves to reflect some of the territorial differences for maintenance of way and at the same time avoids the extremes in the percent variable ranging up to over 100 percent for the Eastern territory.[43] The percentages for the remaining general accounts were not changed.

TABLE 40.—*Computation of approximate out-of-pocket cost by general accounts* [1]

Item	United States total			Eastern district		
	Percent variable	Weighting	Weighted (1) × (2)	Percent variable	Weighting	Weighted (4) × (5)
	(1)	(2)	(3)	(4)	(5)	(6)
Maintenance of way and structures	67	*Percent* 17	11.4	78	*Percent* 15	11.7
Maintenance of equipment	90	25	24.3	90	29	26.1
Traffic	23	3	.7	18	3	.5
Transportation, rail-line	82	49	40.2	86	50	43.0
General	27	4	1.1	30	3	.9
Total		100	77.7		100	82.2

Item	Southern district			Western district		
	Percent variable	Weighting	Weighted (7) × (8)	Percent variable	Weighting	Weighted (10) × (11)
	(7)	(8)	(9)	(10)	(11)	(12)
Maintenance of way and structures	63	*Percent* 16	10.1	60	*Percent* 19	11.4
Maintenance of equipment	90	29	26.1	90	25	22.5
Traffic	32	4	1.3	25	4	1.0
Transportation, rail-line	75	47	35.3	80	66	38.4
General	32	4	1.3	25	4	1.0
Total		100	74.1		100	74.3

[1] Table excludes "Transportation, water-line," "Miscellaneous operations," "Equipment and joint facility rents," and "Taxes." Weighting based on operating expenses for 1941. See Statistics of Railways, table 80. Percent variable shown in columns (1), (4), (7), and (10) are weighted by the percentage that each general account constitutes of the total of the accounts listed and the results shown in columns (3), (6), (9), and (12).

On the basis of the above figures which reflect in some substantial degree the behavior of the costs with changes in traffic volume over the past 6 years, the out-of-pocket operating expenses constitute roughly from 74 percent to 82 percent of the total operating

[42] Figures furnished by Engineering Division of the Commission's Bureau of Valuation. Study is based on Nation-wide average main-line operations. It is low for railroads having very high density of traffic and high for roads of low density. It reflects the wear and tear caused by traffic as opposed to that occasioned by the action of the elements. On a long-term basis the expense occasioned by the latter on second main tracks, sidings, etc., built to accommodate added traffic should be included in the out-of-pocket cost.

[43] If a carrier has access to needed capital for additions and betterments, it is not believed that any large group of expenses will remain at much over 100 percent variable for an extended period of time.

4729

[fol. 4729]

expenses. The variable portion is higher in the East than in the South and West. The above figures do not include miscellaneous operations, equipment, and joint facility rents and taxes.

The procedure followed in developing the data shown in table 39 is based on a relatively short term view of the traffic changes, i. e., annual changes. If the trend of traffic is subject to many reversals, such as that occurring in 1938, and if a lag exists between the period when the change occurs and the period when adjustments are made in the expenses, the effect of a trend either upward or downward is counteracted, resulting in a stability which would not exist if the trend in any one direction persisted for a lengthy period. This particularly applies to station employees.[45]

The application to each account of the out-of-pocket percentages shown in column (6) of table 39 for all class I carriers (United States) resulted in a finding that 72 percent of the total freight operating expenses, rents and taxes are variable. All out-of-pocket operating expenses, rents, and taxes introduced by the Bureau are based on this percentage. (See ch. XIII.)

Study by B. T. Elmore based on year-to-year trend.

A similar study of the effect of traffic changes on transportation, rail line, expenses was made by B. T. Elmore.[46] The study was based on a general study of the transportation expenses during the years 1924 to 1930, inclusive, but more particularly upon a comparison of these expenses for the years 1929 and 1930. The findings in this study were as follows:

Transportation, rail line (accounts 371 420)

	Percent variable
Yard expenses (accounts 377 389)	88.64
Train expenses (accounts 392 402)	93.15
All other transportation expense	76.52
Total of group	86.51

The explanation of the study follows:[46]

The extent to which the transportation, rail-line, expenses are estimated to be variable with the traffic, is based upon a general study of these expenses during the years 1924 to 1930, inclusive, but more particularly upon a comparison of these expenses for the years 1929 and 1930, after making certain adjustments intended to more properly relate the figures for the 2 years to each other for the purpose here involved. During these 2 years there was no change in the rate of wages paid, and none of consequence in the prices of materials included in the transportation group of expenses, except in the case of fuel, for which proper adjustment was made. Although the volume of freight carried in 1929 was the greatest in the history of the railroads, the railroad plant was adequate for its handling generally without congestion. There was not much change in the railroad plant in 1930, and, it may be added, there has been but little since that time. In view of these things it would appear that the transportation expenses in these 2 years afford the best information available as of any recent period as to the approximate extent to which these expenses are affected by a substantial variation in the volume of traffic.

Measured in terms of revenue ton-miles, which gives consideration both to the quantity of freight and the length of haul, the figures showed that a 16.66 percent greater amount of freight traffic in 1929 than in 1930 occasioned a 14.42 percent greater amount of transportation expense in the former than in the latter year. Based upon these two figures, 86.5 percent of the transportation expenses vary with the traffic. Compared by individual accounts, the figures indicated that all classes of the transportation expenses are affected by and vary with the amount of traffic, some to a much greater extent than others, the class of expense least affected, possibly as might be expected, being drawbridge operation. From this comparison it appeared that some classes of expenses, notably yard enginemen, conductors and brakemen, yard fuel, and train enginemen, trainmen, and other supplies for train locomotives, were affected to an extent somewhat greater in proportion than the difference in the traffic in the 2 years. While an exact explanation of this is not available, it would obviously be unreasonable to expect the record traffic of 1929 to have been handled without some lost motion and excess expense in some cases. In order to make use of the figures for the purpose of the study of out-of-pocket costs here involved, it was decided to accept 86.5 percent as being reasonably indicative of the approximate extent to which the transportation expenses as a whole are affected by variation in the amount of traffic, but to assume that the yard and train expenses above mentioned and a few others should not normally vary to an extent greater than in direct proportion to the traffic involved, and to make such adjustments in the proportions for all other transportation expenses as should be necessary on this account.

Computation of out-of-pocket costs based on a comparison of roads of varying traffic densities, 1927.

The methods of approach used in computing table 39 and the Elmore data given above are based on observations of the effect of year-to-year changes in the carrier's traffic volume on its annual expenses for a period of years. Another method of approach is to take but one period of time (a year) and observe the degree to which the expenses differ for a number of carriers of different traffic density. The principle followed is that a comparison of the costs for a large number of railroads having a range of traffic densities will indicate the relationship between increasing density and expenses. Furthermore, as the difference in the densities between railroads tends to remain relatively unchanged for extended periods the result more nearly indicates the long-term effect of changes in traffic density on a carrier's expenses than do the seasonal or year-to-year variations previously referred to. In making a study of this nature care must be taken to compare like with like insofar as possible. Differences in cost and investment resulting from differences in topographical conditions, or from substantial differences in the character of the traffic handled should be avoided by omitting from the study those carriers whose operations and characteristics differ widely from those generally obtaining in the district.

The above method of approach was used in the study of out-of-pocket costs made in 1933 by B. T. Elmore and referred to above. The costs in gross ton-miles were accumulated for every carrier of over 300 miles in length, excluding the Long Island Railroad. 1927 data were used. The figures were plotted and a trend line determined which served to indicate that portion of the expenses affected by traffic volume.[47]

The results of this study were as follows:

	Percent by which expenses are variable at average density
Maintenance of way	[1] 67.65
Maintenance of equipment	98.22
Transportation expenses	90.59
General expenses	75.15

[1] This figure is applicable at the average density of approximately 5,000,000 gross ton-miles per mile of road; at 2,000,000 gross ton-miles of road the figure would be 55 percent, at 4,000,000 gross ton-miles the percentage becomes 62 percent.

[45] Where the trend persists in any one direction for 2 or 3 years, the percent variable increased toward the close of the period.

[46] See Out-of-pocket Costs as a Factor in Determining Freight Rates, Bureau of Statistics, Interstate Commerce Commission, October 1933.

[47] Ibid.

[47] The method used in the Elmore study was described as follows: "Given the traffic volume (in such units as car-miles, cars handled, or ton-miles) and the expense each month, plot these items on cross-section paper, with traffic measured along the base line and expense in the vertical direction. Then draw a straight line representing the trend of the plotted points, either relying on the eye or first deriving the equation of the line by the method of least squares. Then erect a perpendicular at a point on the base line representing the average traffic to meet the trend line. Also draw a line parallel to the base line and passing through the point at which the trend line cuts the ordinate for zero traffic and extend it to meet the perpendicular erected at the point of average traffic. The length of this ordinate between the trend line and the base line is thus divided into two parts, that affected and that not affected by traffic volume." The traffic was measured in terms of gross ton-miles (millions) per mile of road operated (p. 15 of report).

3534 [fol. 4730]

4730

1939 study based on comparison of roads of varying traffic density.

A study of similar character has been made by the Bureau using cost data developed in connection with I. C. C. Docket No. 28300. In this study the carriers were grouped into three districts—Eastern (including New England), Southern, and Western.

The variable portion of the expenses was computed separately for each district and for each group of expenses used in developing the costs in I. C. C. Docket No. 28300. The expense groups are shown below: [48]

Group (1)	Expenses included (2)	Unit with which traffic volume is measured (3)
I	Freight-train car expenses—Running service, mileage plus time portion, excluding mileage cars.[1]	Car-miles per mile of road excluding mileage cars.
II	Other running expenses common to all cars including principally intertrain, intratrain and interchange switching.[1]	Car-miles per mile of road, including mileage cars
III	Running portion of locomotive maintenance, maintenance of way and transportation.[1]	Gross ton-miles per mile of road excluding nonrevenue traffic and caboose.
IV	Carload switching expenses at origin and destination.	Carloads originated and terminated per mile of road.
IV	Less-carload switching expense at origin and destination.	Less-carload cars originated and terminated per mile of road.
V	Less-carload switching expense at transfer points.	Less-carload loaded car-miles per mile of road.
VI	Carload freight-train car maintenance account switching service and detention for loading and unloading at origin or destination.	Carloads originated and terminated per mile of road.
VI	Less-carload freight-train car maintenance account switching service and detention for loading and unloading at origin or destination.	Less-carload loaded cars per mile of road.
VII	Less-carload freight-train car maintenance and rentals account switching and detention for loading and unloading at transfer points.	Less-carload loaded car-miles per mile of road.
VIII	Carload station clerical expenses.....	Carload cars originated plus carloads terminated per mile of road.
VIII	Less-carload station clerical expenses	Less-carload tons originated plus less-carload tons terminated per mile of road.
IX	Less-carload station platform expenses at origin or destination.	Less-carload tons originated plus less-carload tons terminated per mile of road.
X	Less-carload station platform expenses at transfer points.	Less-carload net ton-miles per mile of road.

[1] Common to both carload and less-carload services.

The use of the above grouping of the expenses permits of the separate treatment of those expenses which are variable with distance from those which are independent of distance. It also permits of the measurement of traffic changes in terms of those units which best measure the use made by the traffic of the several parts of the railroad plant. The reduction of the expenses and traffic to a per mile of road basis was made for the purpose of eliminating those changes in expenses and traffic volume occasioned solely by differences in the carriers' road mileage, i. e., those changes not accounted for by changes in density.[49] The separation by territories was made for the purpose of reducing the influence of topographical conditions upon the costs.

All carriers having an average haul of less than 50 miles, average loads of more than 40 tons, and a density of over 250,000 car-miles per mile of road were excluded.[50] Roads having very short hauls were eliminated because their operations were apt to be not typical of the operations of the general run of line-haul carriers under study. In some cases their operations were more like those of switching carriers than of line-haul carriers. In other cases the operations were affected by a high percentage of passenger traffic.

The elimination of carriers averaging more than 40 tons per carload was to remove the influence of coal and ore roads, the low costs for which are strongly influenced not only by increased gross ton-miles per mile of road but also by a substantial change in the character of traffic with a resultant large increase in the average load per car.

The elimination of carriers having more than 250,000 car-miles per mile of road was for the purpose of eliminating certain bridge carriers, the inclusion of which would distort the results. Not all carriers subject to the above limitations showed unusual cost trends but to eliminate the effect of "picking and choosing" the above three elimination tests were applied.

Aside from the break-down of the data by districts and by expense groups and the elimination of the carriers listed above, the statistical procedure followed was identical with the procedure outlined above in connection with the Elmore study. The study was conducted separately for each district.[51] The out-of-pocket expenses for each district were totaled and divided by the grand total expenses for the United States to obtain the percent variable shown for the United States. This latter figure is thus a weighted average of the figure for each district. The results are summarized in table 41. They are also shown in Charts 3 to 14 for the principal groups of expenses (groups I–IV) [52]

TABLE 41.—*Out-of-pocket costs by districts based on a comparison of the expenses per mile of road with the traffic volume per mile of road* [1]

Expense group	Out-of-pocket percent			
	United States	Eastern district	Southern district	Western district
I. Freight train car expenses—running	82	82	80	83
II. Other running expenses including intertrain and interchange switching	93	104	83	78
III. Running portion of maintenance of way and transportation	64	68	63	63
IV. Carload switching expenses at origin and destination	103	100	96	106
IV. Less-carload switching expenses at origin and destination	111	128	101	101
V. Less-carload switching expenses account transfer	96	110	87	88
VI. Carload freight-train car maintenance at origin and destination	88	83	96	87
VI. Less-carload freight-train car maintenance at origin and destination	96	93	96	100
VII. Less-carload freight-train car maintenance at transfer points	(2)	(2)	(2)	(2)
VIII. Carload station clerical expenses	55	60	54	50
VIII. Less-carload station clerical expenses	70	80	60	61
IX. Less-carload station platform expenses at origin and destination	104	110	96	100
X. Less-carload station platform expenses account transfer	98	97	98	98
Total (carload and less-carload)	76	81	73	73

[1] Ibid.

[2] Combined with group V, less-carload switching—transfer.

[48] See Rail Formula A, schedule H, sheet 1, columns (1) and (2) for greater detail of the expenses included in each group.

[49] This method of approach does not reflect the effect of added traffic on the construction of additional road mileage. It only reflects the effect of increased traffic density on the investment in the existing road mileage.

[50] The carriers eliminated included the following—

Average haul less than 50 miles: New York Connecting; Cambria & Indiana; New York, Susquehanna & Western; Detroit & Toledo Shore Line; Lehigh & New England (average haul also over 40 tons); Monongahela (average haul also over 40 tons); Montour; Staten Island Rapid Transit; Elgin, Joliet & Eastern; Missouri-Illinois; Long Island; Pennsylvania-Reading Seashore Lines; Lake Superior & Ishpeming; Oklahoma City-Ada-Atoka.

Average haul over 40 tons (see note): Pittsburgh & Lake Erie; Bessemer & Lake Erie; Chesapeake & Ohio; Lehigh & New England; Monongahela; Virginian; Duluth, Missabe & Iron Range; Norfolk & Western.

Density over 250,000 car-miles per mile of road: Cincinnati, New Orleans & Texas Pacific; Richmond, Fredericksburg & Potomac.

(NOTE.—Upon completion of the study it was found that 5 railroads having average hauls of over 40 tons had been erroneously included. They were the Chicago & Illinois Midland, Pittsburg & Shawmut, and Pittsburg, Shawmut & Northern in the Eastern district, and the Nevada Northern and the Utah in the Western district. The Utah was subsequently eliminated in computing groups III and VI expenses. The Chicago & Illinois Midland was also later eliminated in computing Group VI expenses. Such eliminations were made as the expenses were found to be highly abnormal.)

[51] The break-down by districts follows the grouping used in Statistics of Railways in the United States issued annually by the Bureau of Transport Economics and Statistics.

[52] Supporting detail appears in I. C. C. Docket No. 28300, exhibit 12, appendix G.

EASTERN DISTRICT, 1939

CHART 3 GROUP I EXPENSES PER MILE OF ROAD RELATED TO REVENUE CAR-MILES (OTHER THAN MILEAGE "CARS") PER MILE OF ROAD

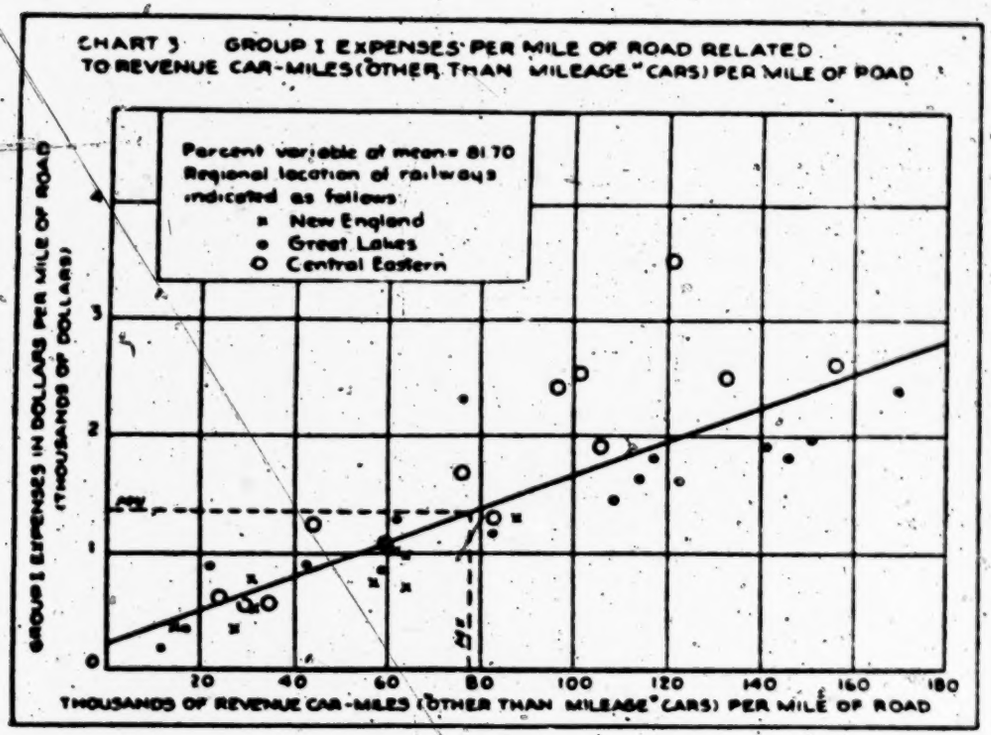


CHART 4 GROUP II EXPENSES PER MILE OF ROAD RELATED TO REVENUE CAR-MILES (INCLUDING "MILEAGE" CARS) PER MILE OF ROAD

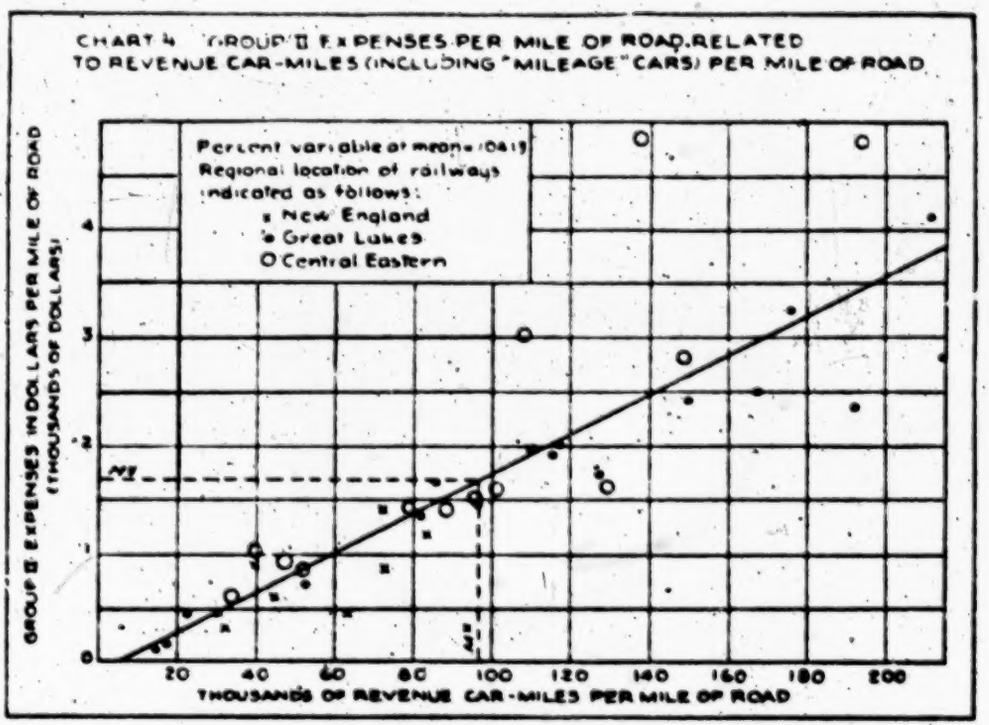


CHART 5 GROUP III EXPENSES PER MILE OF ROAD RELATED TO REVENUE GROSS TON-MILES PER MILE OF ROAD

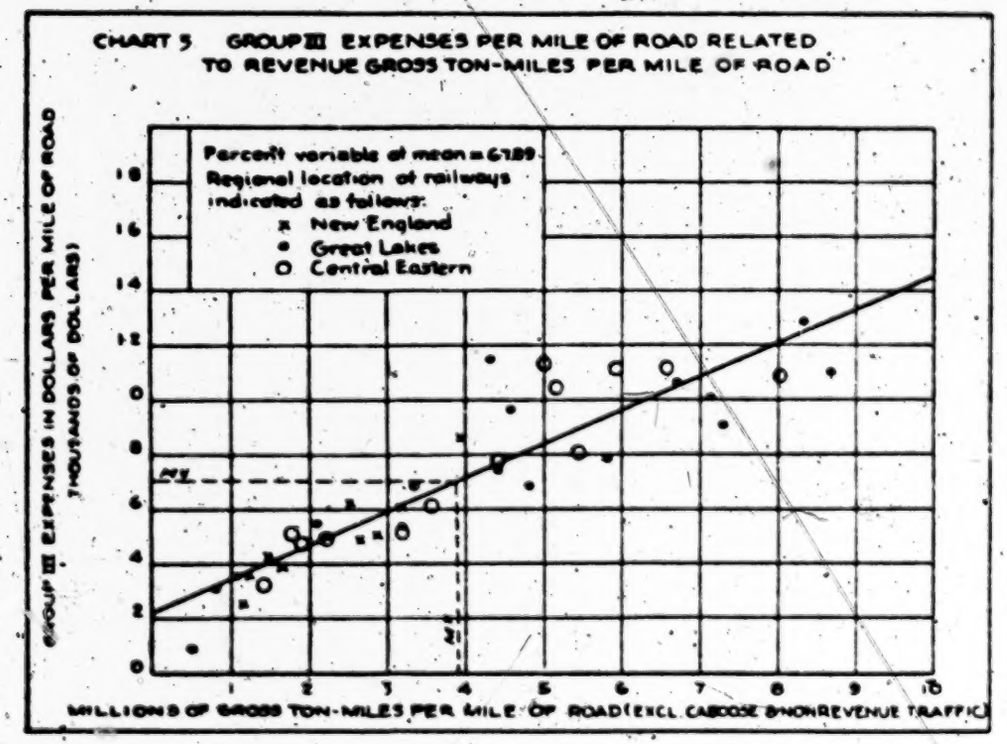


CHART 6 GROUP IV CARLOAD EXPENSES PER MILE OF ROAD RELATED TO NUMBER OF LOADED CARLOAD CARS SWITCHED PER MILE OF ROAD

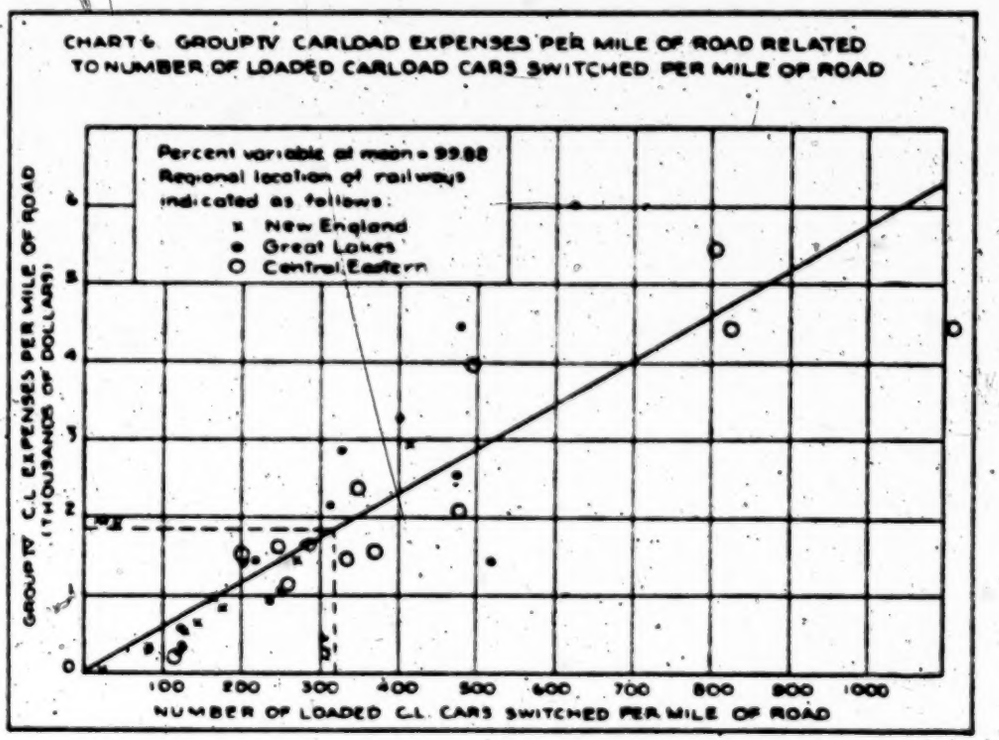


CHART 7 GROUP I EXPENSES PER MILE OF ROAD RELATED TO REVENUE CAR-MILES ("OTHER THAN MILEAGE" CARS) PER MILE OF ROAD

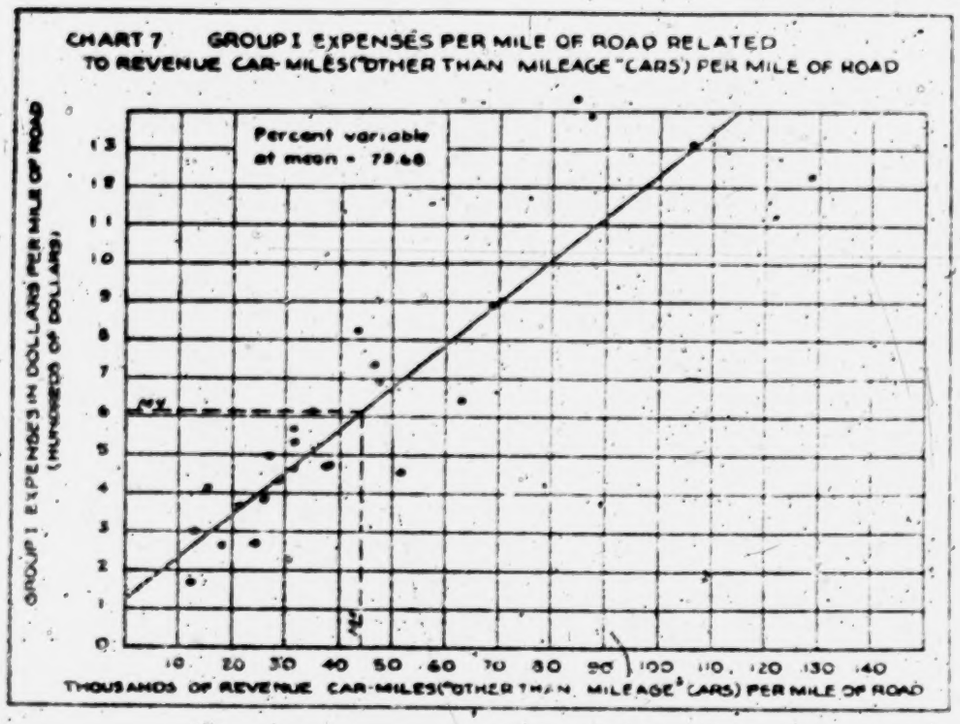


CHART 8 GROUP II EXPENSES PER MILE OF ROAD RELATED TO REVENUE CAR MILES (INCLUDING "MILEAGE" CARS) PER MILE OF ROAD

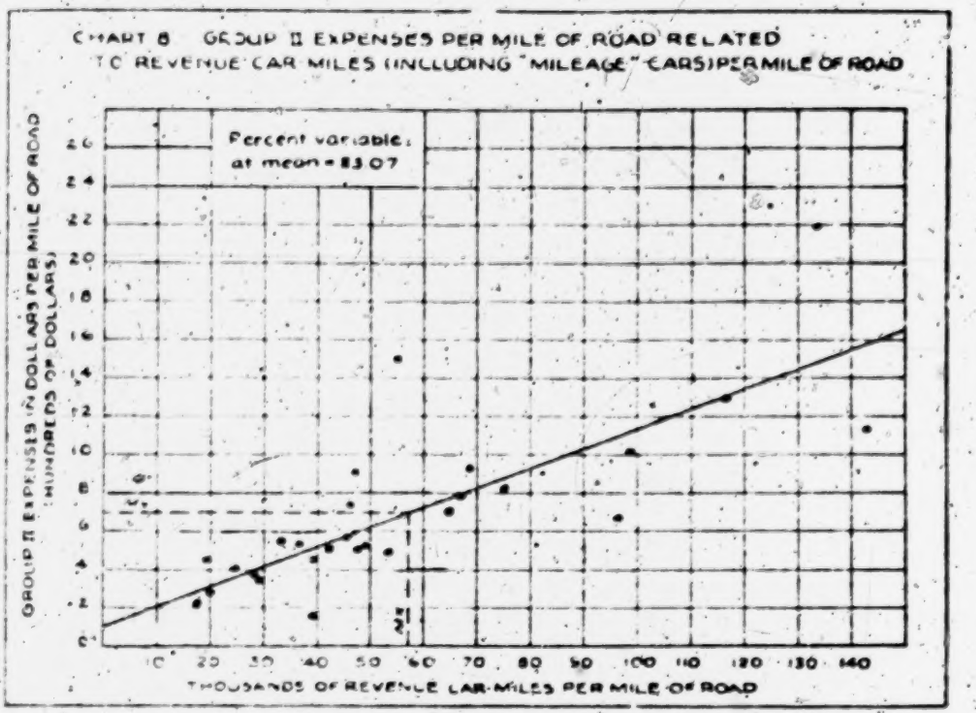


CHART 9 GROUP III EXPENSES PER MILE OF ROAD RELATED TO REVENUE GROSS TON-MILES PER MILE OF ROAD

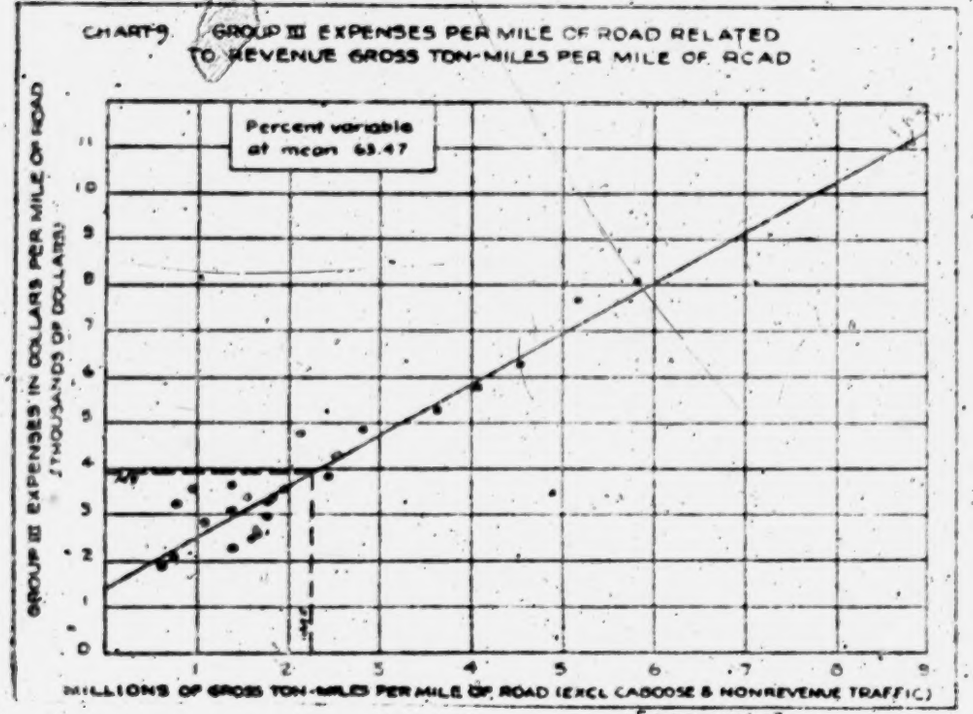
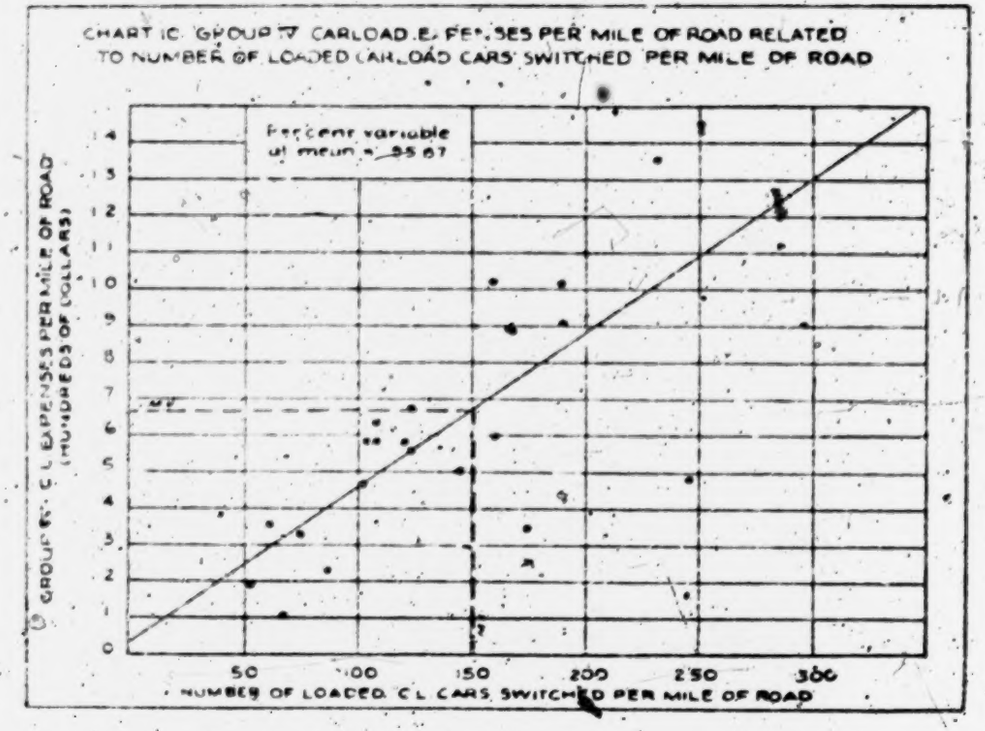


CHART 10 GROUP IV CARLOAD EXPENSES PER MILE OF ROAD RELATED TO NUMBER OF LOADED CARLOAD CARS SWITCHED PER MILE OF ROAD



4733

[Vol. 4733]

333

CHART 11. GROUP I EXPENSES PER MILE OF ROAD RELATED TO REVENUE CAR-MILES (OTHER THAN MILEAGE "CARS") PER MILE OF ROAD

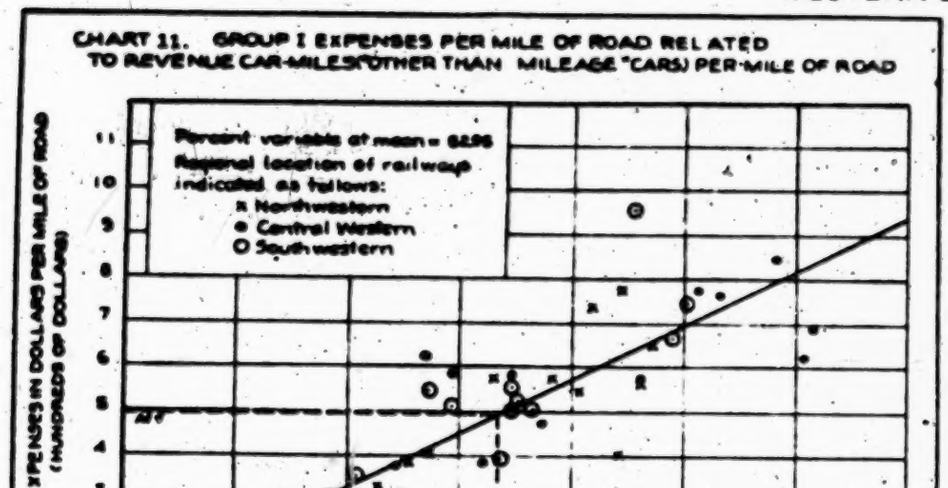


CHART 12. GROUP II EXPENSES PER MILE OF ROAD RELATED TO REVENUE CAR-MILES (INCLUDING "MILEAGE" CARS) PER MILE OF ROAD

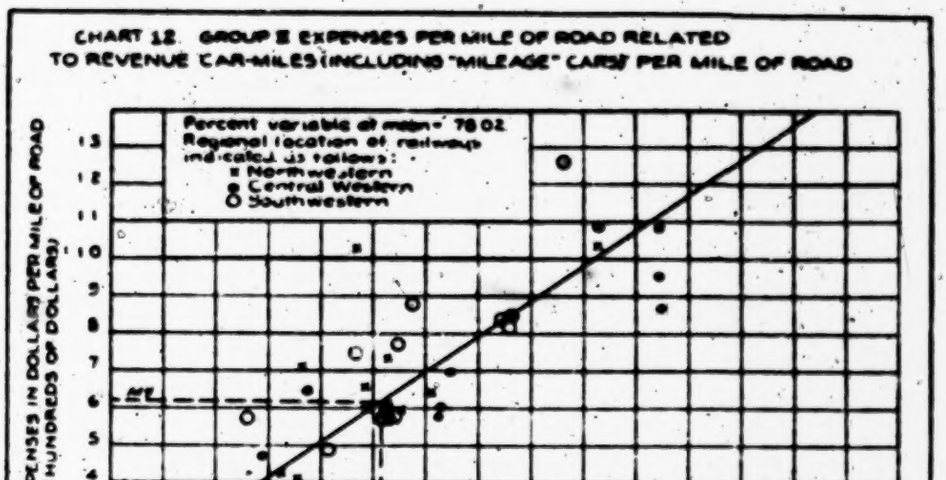


CHART 13. GROUP III EXPENSES PER MILE OF ROAD RELATED TO REVENUE GROSS TON-MILES PER MILE OF ROAD

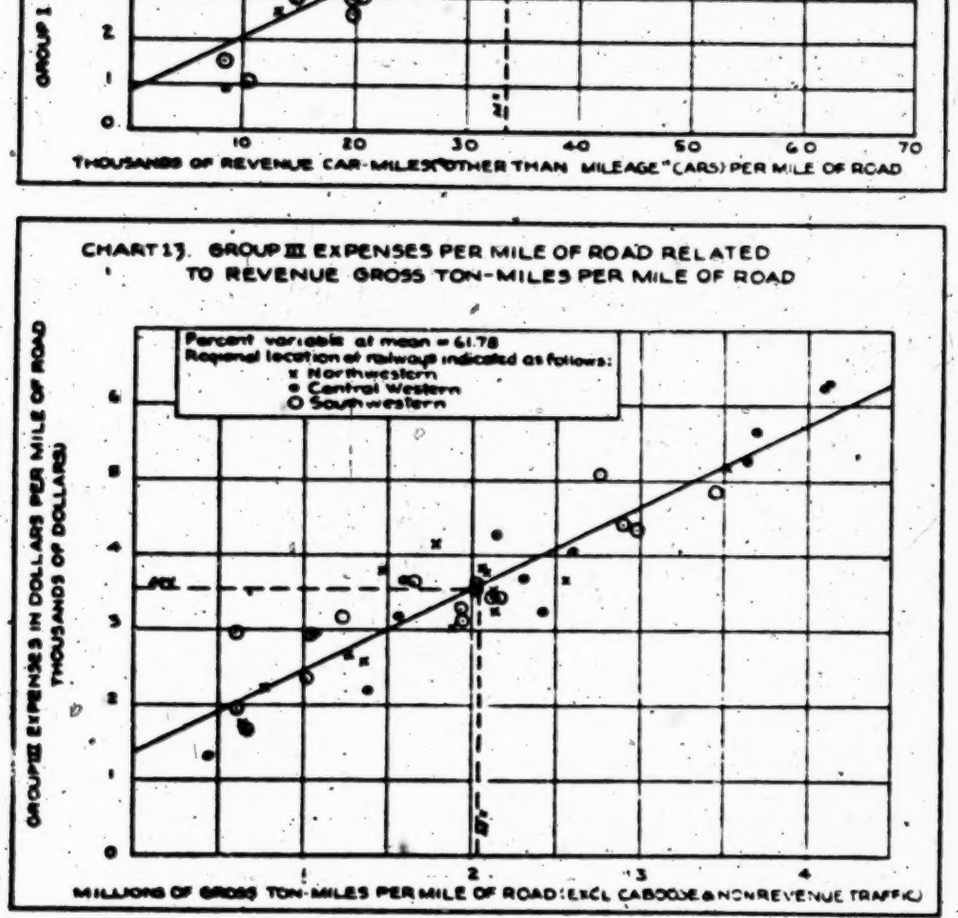
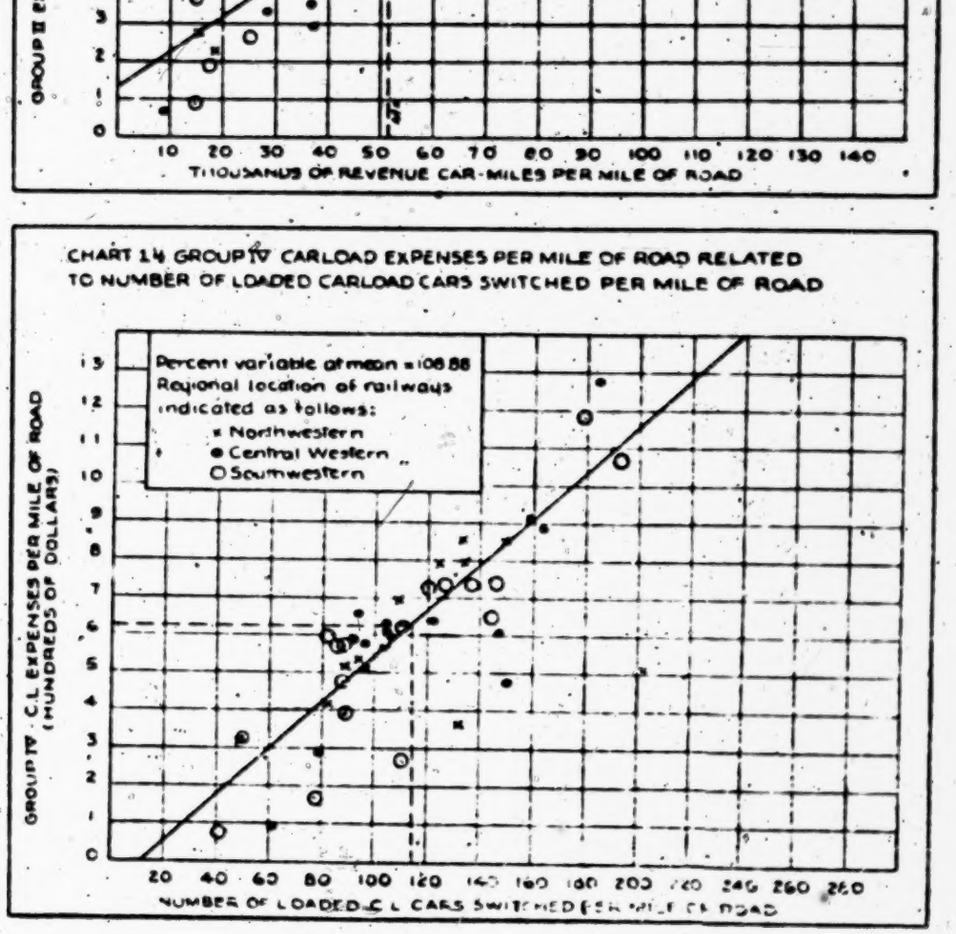


CHART 14 GROUP IV CARLOAD EXPENSES PER MILE OF ROAD RELATED TO NUMBER OF LOADED CARLOAD CARS SWITCHED PER MILE OF ROAD



The study indicates that the out-of-pocket portion of the operating expenses, rents and taxes for the United States constitutes 76 percent of the total of such expenses. The figures for the Eastern, Southern, and Western districts are 81, 73, and 72, respectively. The percentages are highest for the Eastern district which has the highest density of traffic.

It will be noted that certain terminal expenses are over 100 percent variable with added traffic. The reasons for this have been discussed in chapter X.

The trend in the rate level.

If a substantial portion of the carriers' expenses are constant one would expect a long-term reduction in the cost per ton-mile. One would also expect a long-term reduction in the revenue per ton-mile, assuming such reduction is passed on to the consumer.[83] Chart 15 shows the trend of revenues over a 50-year period (solid line).[84] The broken line shows the revenue adjusted for price-level changes, i. e., changes in the purchasing power of the dollar. The adjusted revenue was obtained by dividing the actual revenue by the Bureau of Labor Statistics Index of Wholesale Prices.[85]

The unadjusted revenues per ton-mile show a downward trend between 1890 and 1899, little change between 1899 and 1917, an abrupt increase between 1917 and 1921 and a continuing downward trend between 1921 and 1941. A part of this downward trend 1921–41, is attributable to an increase in the average length of haul, the terminal costs at origin and destination being distributed over an ever-increasing number of line-haul miles.[86]

Another factor influencing the general rate level is the character of the traffic. The following data show the nature of the traffic by 10-year periods between 1910 and 1940, the figures for prior years not being available.

Tons originated, percent of total

Year ended	Products of agriculture	Products of animals	Products of mines	Products of forests	Manufactures and miscellaneous	Merchandise	Total
June 30, 1910	8.1	2.1	56.2	0.7	18.2	3.7	100.0
Dec. 31, 1920	8.8	2.1	50.8	2.0	30.1	4.2	100.0
Dec. 31, 1930	9.0	2.0	55.7	0.9	24.1	2.5	100.0
Dec. 31, 1940	8.5	1.5	56.5	0.5	26.0	1.4	100.0

[83] If the early estimates that one-half the operating expenses and two-thirds the total expenses including fixed charges were constant) had been realized, the total cost of transportation including return should have been reduced by approximately 30 percent following the fourfold increase in traffic density 1890–1940.

[84] Supporting detail appears in I. C. C. Docket No. 28300, exhibit 12, appendix H.

[85] U. S. Department of Labor. Bureau's index based on 1926=100 was converted to 1910–14=100. Index based on wholesale prices of 784 commodities beginning in 1929, 813 beginning January 1890 and 483 beginning March 1840. A smaller number of commodities was covered in earlier years. The price of each article was weighted by the approximate quantity marketed during the period approximating that covered by the index. (See Statistical Abstract of the United States, U. S. Department of Commerce, 1940, p. 324. For the years 1940 and 1941, see also "Index Numbers of Wholesale Prices by Groups of Commodities and by Months," U. S. Department of Labor, Bureau of Labor Statistics.)

[86] The increase in the average length of haul between 1890 and 1940 was as follows (from Statistics of Railways in the United States, 1940, table 155):

Period	Haul per ton United States as a system
1890	241
1910	256
1920	305
1930	310
1940	351

Over the period 1910–40 the products of forests and merchandise have declined relative to the total while the manufactures and miscellaneous group has increased. The net effect of this shift is to reduce the rate level in small degree.[87]

Over the long-term period the adjusted revenue per ton-mile (revenue corrected for changes in purchasing power) is useful in indicating the trend in the total burden of transportation as it rests upon the shippers. The trend in this cost was generally downward from 1897 to 1915. Subsequent to 1915 the trend is distorted by two periods of severely abnormal conditions, namely, the First World War, including the post-war years 1919–21, and the severe depression of the thirties, particularly the years 1931 to 1934. If one eliminates these two abnormal periods it will be noted that between 1905 and 1941 the adjusted revenue per ton-mile has remained nearly constant or at least has fluctuated within a relatively narrow range. The maximum variation in any one year from the average for the 27 years is about 10 percent. The averages for the periods 1905–15, 1922–30, and 1935–41 are, respectively, 0.78, 0.79, and 0.82 cent per ton-mile. The figure of 0.7325 for 1910 approximates that of 0.7373 for 1925 and 0.7329 for 1941. The conclusion is reached that if one eliminates the obviously abnormal periods and the effect of changes in the price level, the burden of rail transportation as borne by the consumer has remained relatively constant between 1905 and 1941.

It is not possible to draw any specific conclusions from the foregoing as to the separation of the costs between variable and constant other than to point out that whatever the long-term saving may have been between 1905 and 1941 from the operation of the law of increasing returns such saving has not resulted in a lower general rate level taking into consideration the changes in purchasing power of the dollar over the period. This does not necessarily mean that the law of increasing returns was not operative. It does indicate, however, that whatever the savings may have been they have been absorbed by other factors.

Summary.

Based on the data reviewed above the conclusion is reached that on the average the out-of-pocket operating expenses, rents, and taxes for all class I carriers constitute between 70 and 80 percent of the total of these expenses. These are composite figures reflecting all operating conditions in each territory. The variable portion of the expenses is somewhat less in the Southern and Western districts than in the Eastern district. In individual cases on lines of great density the percentage will be higher. On the other hand the out-of-pocket portion of the expenses on lines of light traffic density or on branch lines will be lower than the figures indicated.

[87] In 1940 the distribution of the revenue by commodity groups was as follows:

	Percent
Products of agriculture	13.9
Animals and products	4.7
Products of mines	29.3
Products of forests	6.4
Manufactures and miscellaneous	39.0
All less-than-carload freight	6.7
Total	100.0

(Statistics of Railways in the United States, 1940, p. 46)

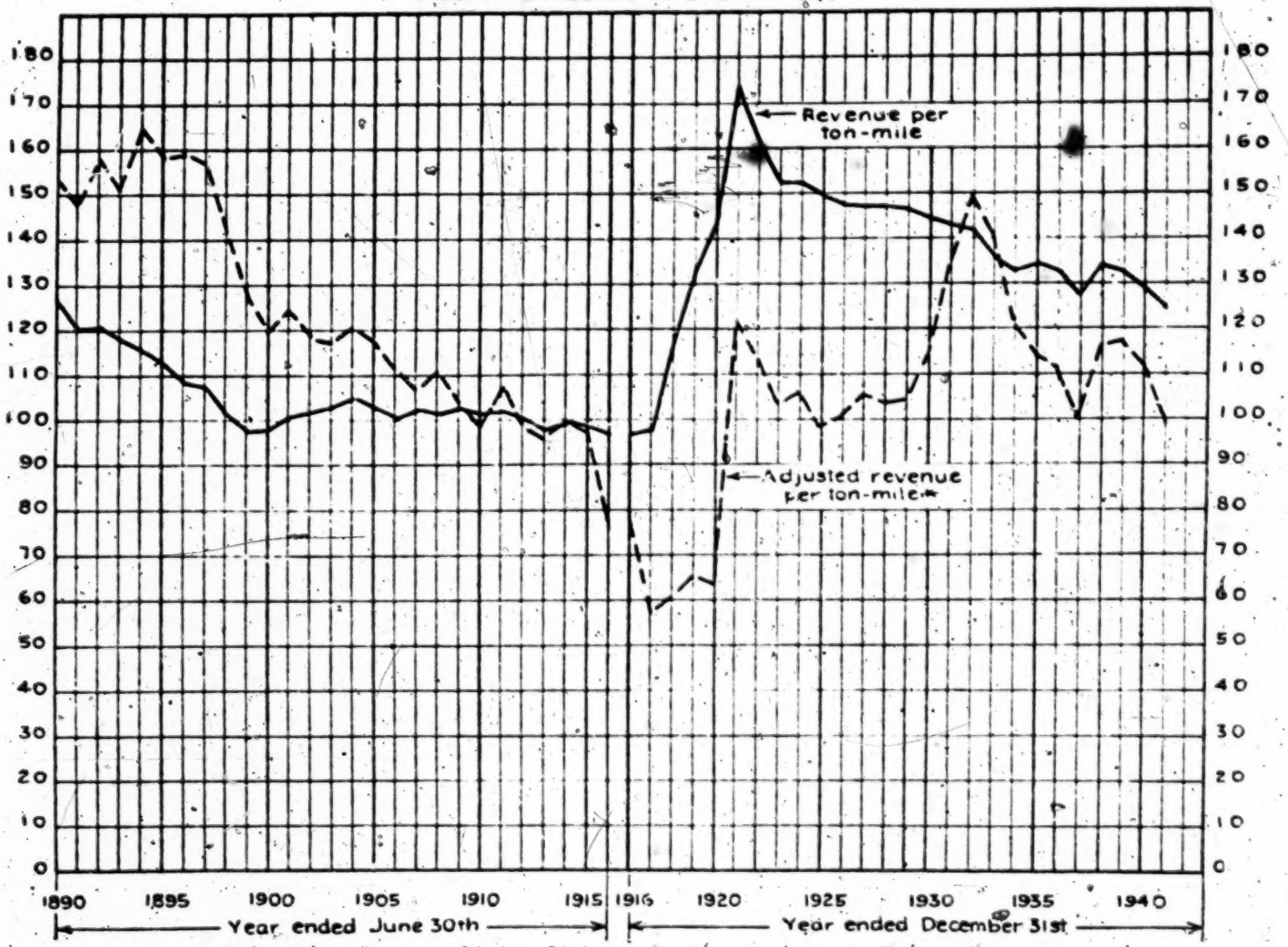
The decrease in less-than-carload tons from 3.7 and 4.2 percent of the total tonnage in early years to 1.4 percent in 1940 more than offsets any net increase in revenue from "Manufactures and miscellaneous."

[Vol. 47351]

CHART 15.

REVENUE PER TON-MILE COMPARED WITH ADJUSTED REVENUE PER TON-MILE*

(RELATIVE FIGURES 1910-1914 = 100)



* Adjusted by Bureau of Labor Statistics Index of Wholesale Prices (1926=100)

4736

REVIEW OF STUDIES MADE TO DETERMINE THE EFFECT OF ADDED TRAFFIC ON THE INVESTMENT[58]

The railroad industry is one of increasing returns as a result of its ability to make a fuller utilization of the existing plant and its ability to gradually substitute a larger and more efficient plant for a smaller and less efficient plant. With long-term increases in traffic it is inevitable that the capacity of the "existing plant" must be in a more or less continuous state of change. Larger and more efficient plants mean more capital investment. The result has been a substantial expansion in the railroad plant and in the investment per mile of road. Historically American railroads were originally built at the cheapest cost. Grade reductions requiring expensive cuts and fills were avoided. Little ballast was used, in some cases the ties being merely laid on the ground. As traffic increased sufficiently to economically justify improvements and betterments the roadway was gradually rebuilt or otherwise improved and its capacity to handle traffic increased.[59] This process has never stopped for long.

Comments by Hill of the Great Northern and Elliott of the Northern Pacific on need for capital expansion.

Evidence of the pressure of traffic in forcing an increase in railroad terminals, double tracks, side tracks, yards, and low grades was introduced in an Interstate Commerce Commission investigation of car shortages in 1907.[60] The Commission stated:

Neither President Hill, of the Great Northern, nor President Elliott, of the Northern Pacific, urged shortage of cars or locomotives as an excuse for their inability to handle the grain crop, but confessed with frankness that they were using all the cars that they could handle. Thus what appeared to the farmer as a car shortage was not such to the railroad man. To him there was a shortage in adequate terminals, double tracks, side tracks, yards, and low grades. The problem, as stated by him, was not that of securing more cars, but of securing facilities adequate to meet the volume of business which had so greatly increased as to have exhausted the capacity of the entire facilities of the road.

President Elliott said that in attempting to handle the freight offered they were trying to force a 3-inch stream through a 1-inch nozzle. "The railroads have more business than they can handle." President Hill declared that the railroads of the country as a whole "have not kept in sight of the country's growth," that his road as well as many others, was endeavoring to bore a 1-inch hole with a half-inch auger.

President Hill in vigorous language stated that the railroads of the country must invest $5,000,000,000 for the enlargement of facilities upon roads now existing:

The Government of this country and its growth and its business is against a stone wall so high that it cannot see the top of it. No man can see the top of it today. I have looked everywhere, turned everywhere, to see what can be done. During the time from 1895 to 1905 the business of the country—the tons moved 1 mile—increased 110 percent, and the facilities—the increase of facilities for doing the business and handling the miles—increased 20 percent in 10 years, or 2 percent per annum. But of that 20 percent three-fourths of it was new mileage that was built in sections of the country that added to the congestion of the old.

Now I think and I have discussed this question with a number of the most intelligent railroad men that I know—I have asked them how much additional mileage should be built to absolutely relieve the country from the situation and difficulty it is laboring under, the unreasonable delay of freight. There has always to be some delay, but not an unreasonable delay. They put the necessary mileage, some as high as 50 percent. Well, that is out of the question. But men who have taken up the question and thought about it and tried to work it out will say anywhere from 25 to 33 percent. Now, 25 percent of new mileage would be 55,000 miles, and if that is to be built in 5 years it would take 11,000 miles a year. But you would have to add one-third of the mileage for terminal and passing tracks. Add 33 percent to 55,000 and it makes 73,333 miles. Now 73,000 miles additional would not be any more than is actually necessary, because I have distributed it over 5 years, and in 5 years, if we are to have crops at all and if we don't stand still, the allowance is altogether too small. I do not think the new mileage, the new equipment, and terminal facilities could be produced for less than $75,000 a mile of main track, which would amount to $5,500,000,000 or a yearly average of $1,100,000,000.

Now that is what is necessary to move this stuff, to move the business of this country, and it is not any more than is necessary, but it is 30 percent or 40 percent of the cost of the Civil War, and it is more money than the United States can raise. That is the stone wall we are up against, and foresight does not look forward far enough to get a glance of it. We are up against it until it is solved.

An official of one of the roads appearing in the above case stated that from 10 to 15 days is a reasonable time for a car of dead freight to move 350 miles passing through two division points.[61]

Plant expansion by Pennsylvania Railroad to accommodate traffic.

The effect of traffic volume on plant expansion is evident from the following report of the Pennsylvania Railroad Co.[62]

The tonnage shows an exceptional increase both in volume and mileage over that of 1904, the traffic for the year being much the heaviest in the history of the company, and by reason of the liberal expenditures recently made in the construction of relief lines and large terminal yards and the substantial additions made to your motive power, the movement thereof has been materially improved.

One of the most important matters which received attention during the past year was the providing of a sufficient water supply for present and future needs. Owing to the largely increased demand arising from the growth of the traffic, the former sources of supply had become inadequate * * *.

The expenditures for the current year will include the extension of the four track system of the Middle and Pittsburgh Divisions, and the necessary revision of the alinement and grades connected therewith * * *. This will, however, not obviate the necessity for the construction of additional relief lines for the Pittsburgh and New York Divisions. As already stated, the low-grade freight line between York Haven and Glenloch will be placed in service in a few months * * *. Another double track relief line is in operation * * * on the Middle Division * * *. These two lines will amply provide not only for the prompt movement of the present traffic between the points named, but for a large increase; but it will be neces-

[58] Data from I. C. C. Docket No. 2830, exhibit 12, ch. V.

[59] Hadley pointed out that the average investment per mile of road in the United States was a little over $60,000 as compared to more than $200,000 in England. (Railroad Transportation, 1885, p. 146). He offers the explanation that the American railroads were built where existing business amounted to little or nothing, capital was scarce, and speedy and economical construction was more desired than solidity or safety. The lines were built with heavy grade and sharp curves to avoid the expense of cuts and embankments. Changes resulting from traffic increases were not more improvements as in England but involved total reconstruction.

[60] 12 I. C. C. 561, 564-65.

[61] Ibid., p. 566.

[62] Fifty ninth Annual Report, Pennsylvania Railroad Co., 1905, pp. 20-22.

4737
3541

sary to proceed at once with the construction of an additional freight line about 50 miles long, between Morrisville and Newark * * *.

The necessity for the prompt construction of these relief lines will be apparent when it is stated that the average daily movement of freight cars over the Allegheny Mountain summit for October, November, and December 1905, and January 1906, was 5,669 cars, with a maximum movement in 24 hours of 6,974 cars. * * *.

Expansion during the twenties.

By 1916 the railroads reached their maximum length of road mileage, 254,251. Thereafter the mileage declined reaching 233,670 by the close of 1940. The investment after 1916 was therefore principally in the direction of expanded capacity.

Kent Healy [83] points out that the third decade of the twentieth century provided a new phase in the history of the railroads, "They had clearly reached maturity." He briefly sums up the improvement to the existing lines:

There was, however, a considerable amount of double tracking of existing lines. The Union Pacific, the Southern Pacific, and the Atchison, Topeka & Santa Fe added many hundreds of miles of second track to their transcontinental routes. The rising place of the West Virginia and Kentucky coal fields in the country's production resulted in extensive double tracking of the lines carrying coal north and south from these fields. There was also an important amount of double tracking on the main east and west lines of the "Nickel Plate" and the Wabash, and on the St. Louis lines of the "Big Four" and the Pennsylvania, as well as on the Burlington line from Chicago to the Twin Cities. At the same time large sums were spent on improving tracks so that an increasing proportion of line was ballasted and supported by tie plates and creosoted ties, while the average weight of rail increased from about 80 pounds per yard to 90 pounds.[84]

During this decade a vast number of new locomotives and cars were purchased; large new passenger terminals were built at Cleveland and Chicago; freight yards and supporting terminal facilities were improved and new ones constructed. In all nearly $8,000,000,000 was spent for additions and betterments. The resultant net increase of the investment in road and equipment, after subtracting retirements, was about $6,000,000,000. On December 31, 1929, the cumulative total investment was $25,000,000,000.[85]

Railroad program to increase capacity (1923).

The following excerpts taken from an address by M. J. Gormley are indicative of the railroad program of expenditures for equipment and other physical improvements adopted in anticipation of a heavy increase in business.[86]

A survey of the situation early in 1923 indicated that the railroads would be called upon to handle the largest traffic in their history during that year. To satisfactorily handle the traffic the railroad executives, at a meeting in New York on April 5, 1923, jointly adopted a "Program of the Railroads to Provide Adequate Transportation Service."

This program, which was adopted in anticipation of a heavy increase in business, included large expenditures for equipment and other physical improvements to property which resulted in new high levels of efficiency in practically all phases of railroad operation. The program was fully carried out, and since that year car shortages and congestions have been eliminated * * *.

Chart No. 1 summarizes the capital expenditures of the railways for the period 1923 to 1938, inclusive. During the years 1923 to 1930, capital expenditures ranged between a high of $1,059,100,000 in 1923 and a low of $676,700,000 in 1928, and averaged $842,700,000 per year for the 8-year period as a whole. In the succeeding 8-year period, 1931 to 1938, expenditures ranged between a high of $509,800,000 in 1937 and a low of $103,900,000 in 1933, and averaged $258,700,000 for this latter period.

Observations of M. O. Lorenz on the variability of the investment.

Several economists have made sufficient analyses of the relation between investment and traffic to reach the conclusion that there is some definite relation between the former and the latter.

M. O. Lorenz noted in 1915: [87]

An industry of increasing returns is one in which an increase in the volume of business done by a given enterprise results in a reduction in the cost of performing a unit of service. This may result, on the one hand, from the fuller utilization of an existing plant, or, on the other hand, from the substitution of a more efficient plant for a less efficient one insofar as this is dependent upon a mere increase of traffic. There is a clear gain from having the existing cars, locomotives, and tracks of a road utilized to their fullest capacity. But when a single-track road has become congested the gain from the source ceases. If a parallel road were then built with the same sized cars and locomotives, the same process would be repeated and in the long run the industry would be one of constant costs. But as the traffic increases, the entire plant is not duplicated. A double track is substituted for a single track, heavier rails are laid, and larger cars and more powerful locomotives are purchased. Here is a new source of gain distinct in kind from the former. Doubtless there are also limits to this kind of economy and perhaps that limit has been nearly reached on a number of roads of densest traffic.

After reviewing statistics of the Philadelphia, Baltimore, and Washington system over a 15-year period this same writer stated: [88]

The examination of the statistics of almost any road will amply demonstrate that practically no great class of expenses is unaffected by the growth in traffic. Below are given data for the Philadelphia, Baltimore, and Washington system for 15 years. The miles of line have remained practically constant, but additional tracks had to be built to take care of the expanding traffic. The traffic taken as a whole has more than doubled, but so have total operating expenses. Investment and maintenance of way have not increased so rapidly but they have by no means remained constant. The operating expenses added to 6 percent on the investment still show over 100 percent increase. Considering the increase in wages there has doubtless been a gain from the mere increase of traffic, especially when the quality of the passenger service is taken into account, but one cannot study a table such as this and speak of interest charges as being fixed expenses which have no relation to the traffic.

Views of other economists.

J. M. Clark in his analysis of the upward trend of investment with traffic volume states: [89]

Yet railroads may bid for increased business on the basis of the economies it brings them when they have unused capacity, ignoring the cost of capital on the ground that this is a constant outlay, at the same time that they are raising millions of capital for the enlargements of their plants which their growing traffic makes necessary.

E. R. Dewsnup points out in this connection: [90]

* * * successive increments of new traffic will finally bring the railroad to the saturation point of utilization of already invested capital. Expansion of track, yard, and station facilities, as well as of equipment, becomes necessary. Generally speaking, expansion is made before the complete saturation point is reached. * * *

The carriers have from time to time recognized the relationship between rate-making and the ability to earn a return on both their present and future investment. Stuart Daggett, after noting that the carriers

[83] The Economics of Transportation (1940), p. 19.
[84] Railway Age, annual issues (1920-30), Statistical Section, Railway Construction; Interstate Commerce Commission, Statistics of the Railways in the United States (1920-29), statements 50-51.
[85] Interstate Commerce Commission, Statistics of Railways in the United States (1929), statement 53; ibid. (1920-29), statement 46, by calculation.
[86] See address, Railroad Capacity, delivered by M. J. Gormley, executive assistant, Association of American Railroads, delivered before Atlantic States Shippers' Advisory Board, Newark, N. J., 1939.
[87] Cost and Value of Service in Railroad Rate-Making, Quarterly Journal of Economics, vol. 30, February 1916, pp. 209-210.
[88] Ibid., pp. 212-213.
[89] Studies in the Economics of Overhead Costs, J. Maurice Clark, 1923, pp. 84-85.
[90] Railway Rate Theory and Practice in the Light of Rhdey's "Railroads," Ernest Ritson Dewsnup, Political Science Quarterly, September 1918, vol. XXX, No. 3, p. 480.

3542 [Vol. 4738]

4738

in the past have required an annual addition to their capital estimated of from $740,000,000 to $1,000,000,000 [71] and after reviewing the carriers' applications for general rate increases observed: [72]

Speaking generally of the whole series of rate applications to the Interstate Commerce Commission, the desideratum has been a standard of aggregate revenue which the carriers of the United States should be allowed to earn in order that they might pay a fair return to investors, and so be enabled to bid for new capital on favorable terms.

From the above it appears that the carriers feel it is a necessary part of their well-being that they should be in a position to attract new capital on favorable terms, a prerequisite of which is the ability to pay a fair return.

Effect of decreasing traffic on investment.

The preceding discussion has dealt only with the effects of added traffic. The railroad plant, however, is responsive to the effect of declining traffic. Aside from land and grading the plant consists of a great number of parts each subject to wear and tear either from use or from the action of the elements. Included are rails, ties, ballast, locomotives, cars, buildings, etc., the regular replacement of which, if stopped for long, would soon hamper and eventually cripple the operation. Based on the average annual retirements the property (exclusive of land and grading) is replaced approximately every 50 years. [73]

Thus, if traffic falls off the mere failure to carry on the normal program of replacements results in the contraction of the railroad plant. Locomotives and cars may not be replaced as rapidly as retired, branch lines may be abandoned, sidings taken up; yards taken wholly or partly out of use, and buildings leased out or razed.

Examples of property taken out of service.

The following excerpts from the 1940 and 1941 reports of the Engineering Section of the Commission's Bureau of Valuation on its general inspection of the carriers' roadway and structures are illustrative of property taken out of service: [74]

Property now under lease or rented

Location	Property out of service
Baltimore, Md	Shed B, brick, 33 by 329 feet. One-half retired, balance leased to produce brokers.
Do	New large brick office building erected in 1929-30, leased entirely to produce dealers.
Dresher, Pa	Freighthouse, not in use, part of building leased to nurserymen.
Harrisburg, Pa	In-and-out freighthouse, 4- and 6-story brick and concrete, part of 6-story end leased.
Pittsburgh, Pa	Office and freight building here, built about 1880. Carrier uses 50 percent and leases 50 percent.
Do	"Out-bound" freighthouse, brick and concrete, 18 by 1,807 feet, leased to electric company.
Northumberland, Pa	Enginehouse of formerly 30 stalls, only 13 stalls in use since 1935, 24 stalls soon to be retired.

Property now under lease or rented—Continued

Location	Property out of service
Indianapolis, Ind	In-bound freighthouse, 75 by 820 feet, leased.
Cincinnati, Ohio	4 freight stations leased to manufacturing company and a forwarding company.
Chicago, Ill	2 buildings in freight yard, each approximately 60 by 240 feet, brick and concrete, tile roof, leased to beer company.
Louisville, Ky	Freight station leased for warehouse purposes.
Terre Haute, Ind	Old car-shop building, brick, with slate roof, approximately 80 by 300 feet leased.
Cincinnati, Ohio	Brick and concrete building, 1- and 2-story, 60 by 600 feet, leased to forwarding company.
Richmond, Ind	Strip of land, 660 by 800 feet, at north side of shop buildings, leased to paving company.
Valparaiso, Ind	Roundhouse, brick, leased to oil company.
Toledo, Ohio	Wharf leased to towing company. Frame portion of freight house leased.
Columbus, Ohio	Out-bound freight house is all leased but 2 bays, and 3 bays of the in-bound house are leased.
El Paso, Tex	31 stall roundhouse leased for other storage; 31 roundhouse tracks, 6 machine shop tracks, and 12 transfer tracks out of service but not retired.
Winchester, Tex	Depot boarded up, now prepay.
Springfield, Ill	The suburban station, which is only about 3 years old is retired and is to be torn down. 100 feet of the freight house is leased.

The following are excerpts from the inspection records relating to track. They are of interest in indicating how the maintenance of the plant may be affected by traffic volume.

Carrier is now engaged in a program of eliminating unnecessary passing tracks in both single and double track territory, in order to save maintenance expense and to reduce the number of turn-outs in the main track. On double track, many facing point switches have been removed, leaving the track in place so that it can be used, if necessary, by a backward movement. The entire track will be later taken up if experience shows that it is not needed.

Ballast on some of the branch lines has not been maintained, and has deteriorated to such an extent that the track is now considered as unballasted. This, in our opinion, (Engineering Section, Bureau of Valuation) cannot be considered as deferred maintenance, because the traffic has diminished to the point where expenditures for ballast are not warranted.

Response of gross capital expenditures to changes in traffic volume.

The year to year response of the gross capital expenditures to changes in traffic volume is illustrated in table 10. The 1936 expenditures of $298,991,000 increased to $509,793,000 or by 70 percent in 1937 following an increase in traffic over 1936. In 1938, a period of traffic decline, the capital expenditures declined by 55 percent to $226,937,000. The upturn of traffic again in 1939 was followed by an upturn in the capital expenditure by 16 percent. This was followed by a further increase of 64 percent in the expenditures for 1940, as the traffic again increased. A 20 percent increase in traffic for 1941 over 1940 was followed by a 27 percent increase in the gross capital expenditures. Although these expenditures have not been corrected for price level changes and credit has not been taken for retirements, nevertheless they serve to indicate the sensitivity of the gross additions and betterments to traffic volume. With the exception of bridges, trestles and culverts the expenditures for every item, including rolling equipment, yard tracks and sidings, shops and engine houses, station and office buildings, etc., appear highly responsive to traffic changes.

[71] Principal of Inland Transportation, Daggett (1941), p. 633.
[72] Ibid., p. 638.
[73] Original cost as of valuation date of each carrier excluding land and rights [illegible] $46,662,761,300. 18 percent deducted for grading. Balance = $38,263,064,866. Average annual retirements for 20-year period 1921-40, inclusive $761,167,374 (from I. C. C. Docket No. 28324, exhibit 12, appendix k).
[74] It is not known whether any of this property has been replaced by other facilities. Even in such cases the data indicate the alternative use to which some parts of the plant may be put.

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3543

4739

TABLE 42.—*Gross capital expenditures on railway property—1936 to 1941, class I railways—United States*[1]

Line No.	Item	1941	1940	1939	1938	1937	1936
	Equipment:						
1	Locomotives	$90,607,000	$54,331,000	$42,837,000	$39,870,000	$59,738,000	$16,200,000
2	Freight-train cars	245,713,000	100,626,000	66,779,000	52,414,000	213,902,000	117,651,000
3	Passenger-train cars	20,544,000	10,417,000	10,723,000	10,149,000	41,691,000	10,765,000
4	Other equipment	11,704,000	6,506,000	4,679,000	4,975,000	6,794,000	6,200,000
5	Total equipment	367,568,000	271,880,000	133,308,000	116,408,000	322,677,000	160,194,000
	Roadway and structures:						
6	Additional main track	3,791,000	3,385,000	3,200,000	2,185,000	2,912,000	5,341,000
7	Yards and sidings	25,374,000	14,233,000	10,459,000	7,509,000	14,363,000	10,924,000
8	Heavier rail	36,108,000	30,473,000	26,399,000	17,207,000	29,149,000	31,700,000
9	Additional ballast	5,635,000	4,904,000	4,342,000	3,213,000	4,730,000	4,341,000
10	Shops and engine houses	13,920,000	11,074,000	9,378,000	7,756,000	13,745,000	6,672,000
11	Station and office buildings, and other station facilities	11,251,000	7,891,000	6,741,000	5,326,000	17,109,000	12,996,000
12	Bridges, trestles, and culverts	19,419,000	22,506,000	21,196,000	18,231,000	19,550,000	18,430,000
13	Signals and interlockers, including telephone and telegraph lines, automatic train control, etc	13,439,000	10,275,000	6,741,000	4,643,000	10,261,000	5,262,000
14	All other improvements	46,536,000	52,320,000	35,047,000	42,357,000	74,539,000	40,091,000
15	Total—roadway and structures	175,453,000	167,241,000	126,641,000	111,529,000	186,916,000	136,957,000
16	Grand total	543,021,000	439,147,000	262,029,000	230,937,000	509,593,000	298,991,000
17	Index, year 1937=100	107	84	51	45	100	59
18	Gross ton-miles, freight and passenger (thousands)[2]	1,413,205,000	1,181,916,418	1,060,291,714	998,604,540	1,155,422,038	
19	Index, year 1937=100	122	102	94	86	100	

[1] Source of lines 1-16, A Review of Railway Operations in 1941, appendix A, special series No. 71, issued by Bureau of Railway Economics, Association of American Railroads, Washington, D. C.

[2] Line 18 from Statistics of Railways in the United States, for years shown, table 44.

NOTE.—Additional track includes rail and the fastenings and other track material. Shops and engine houses include machinery and tools.

Variation in rolling equipment with changes in traffic volume.

Chart 16 shows the trend in the number of locomotives and freight-train cars with traffic volume.[75] As the size, weight, and capacity of locomotives and cars have changed greatly over a period of time, the number of units is of limited significance. Of principal interest is the trend of locomotive tractive effort and the trend of freight-train car capacity. The trend of traffic volume is measured both in revenue ton-miles and in tons originated. As the greater part of the active car-days is consumed at origin and destination terminals the count of tons originated is entitled to slightly more weight than revenue ton-miles in comparing the trend of car ownership with changes in traffic volume.[76] In comparing the trend of locomotive tractive effort with traffic volume some small weight should be given to the trend of tons originated as the investment in yard locomotives used for origin and destination switching (excluding intertrain and interchange work) is independent of the length of the road haul. Neither the tons originated nor the revenue ton-miles reflect the downward trend that has occurred since 1920 in passenger locomotive-miles.[77]

The chart indicates a reasonably close relationship between the ownership of equipment, measured in terms of its capacity, and traffic changes.

Variations in trackage with changes in traffic volume.

Chart 17 shows the trend in the mileage of additional main track and yard tracks and sidings with traffic volume.[78] Like the rolling equipment, it is responsive to changes in traffic volume.

[75] Supporting detail appears in I. C. C. Docket No. 28300, exhibit 12, appendix I.

[76] See ch. V, for distribution of active car-days. The increase in the average length of haul accounts for the differences in the trends for revenue ton-miles and tons originated.

[77] The trend of passenger locomotive miles has been as follows (Statistics of Railways in the United States, 1920, p. 51; 1930, p. 67; 1940, statement No. 39; 1920, statement No. 29; 1930 and 1940, table 54):

	Locomotive-miles
1920	285,575,804
1930 (figures are for passenger-train mileage; mixed-train mileage is not included)	363,821,896
1940 (does not include 37,004,818 locomotive-miles in mixed trains)	367,059,640
1920 (does not include 27,550,248 locomotive-miles in mixed trains)	372,785,704
1930	406,575,770
1940	360,304,061

Analysis of the capital expenditures, 1915–40.

The preceding comparisons based on inventory units, i. e., miles of tracks, locomotive tractive effort, etc., have served to indicate that a relationship exists between investment and traffic volume. A new analysis was next made to reduce the figures to a common denominator, namely, 1910–14 dollars. The assumption was made that the property taken out of service was retired at original cost based on 1910–14 prices. This was accomplished by adjusting the gross additions and betterments for each year to 1910–14 prices and subtracting therefrom the retirements. The net additions and betterments then received minor corrections for the difference between record price of grantor and purchase price of grantee in cases of roads sold, merged, consolidated, etc. The resultant figure indicated the net additions to the railroad plant with the effect of changes in the price level eliminated.[78] The year 1915 was selected as a base year as it represented that year which was closest to the midpoint of the valuation dates for the carriers and at the same time was free from the World War's effect on traffic. Table 43 shows in column (2) the net increase in the plant between 1915 and 1941. Column (3) shows the cumulative total.

During the war period and the post-war period immediately following 1916–21, the increase in the plant in terms of 1910–14 prices amounted to $1,628,838,352, or approximately $250,000,000 per year. Between 1922 and 1930 it averaged slightly less, or $237,000,000 per year. During the period 1931 to 1939 the railroad plant contracted by $1,168,643,793 or an average of $130,000,000 per year. During the 3 years immediately following the low point in traffic reached in 1932, the reduction averaged $216,000,000 per year or an amount but little less than that at which the property increased between 1915 and 1930. The total increase in property during the 15-year period 1915–30 was $3,764,362,826 or approximately 20 percent of the original cost of the property as of June 30, 1915, namely, $18,965,001,103.[78a]

[78] Supporting detail appears in I. C. C. Docket No. 28300, exhibit 13, appendix K.

[78a] Includes classes I, II, and III roads.

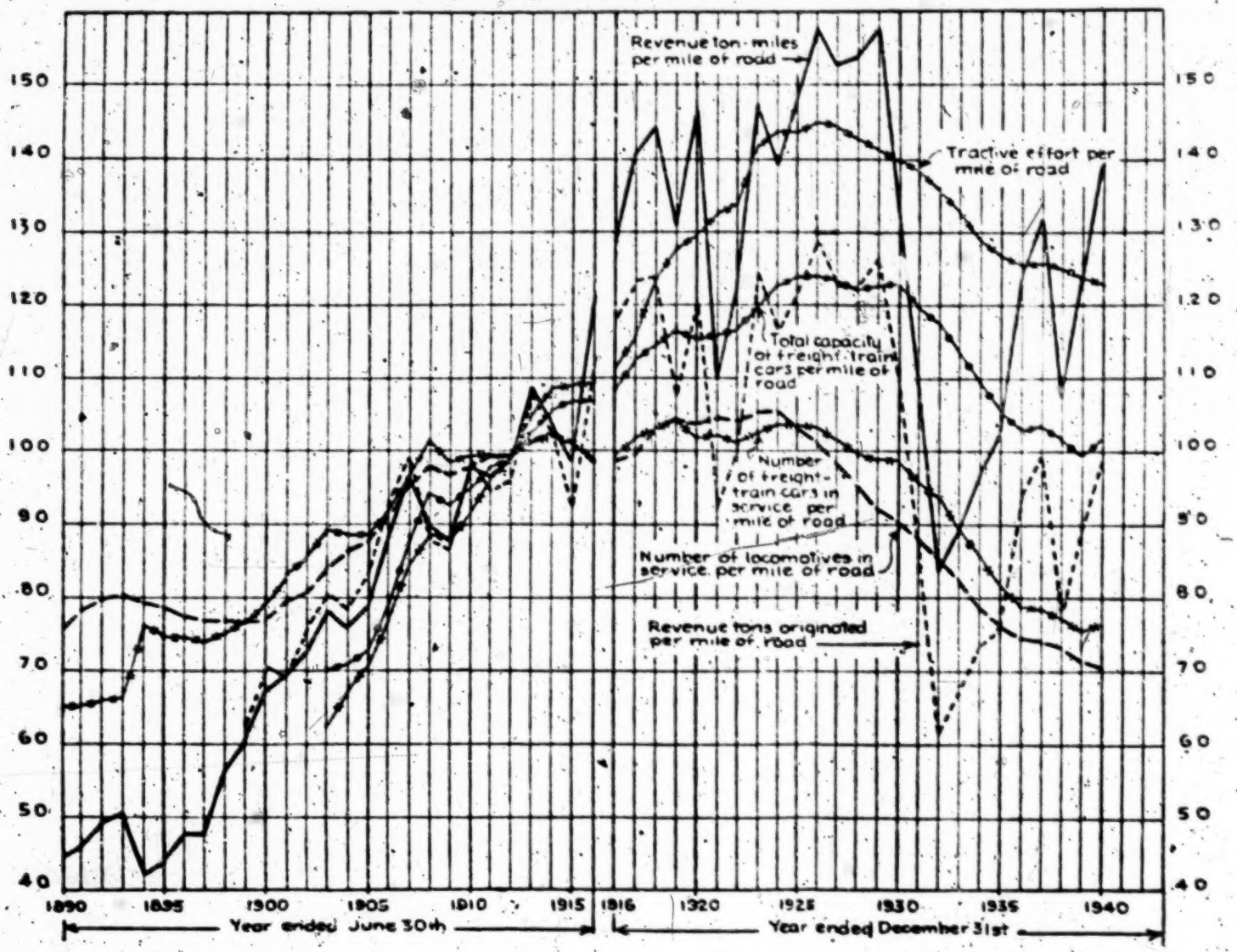
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4746

CHART 16

COMPARISON OF TREND OF REVENUE TON-MILES AND REVENUE TONS ORIGINATED WITH NUMBER OF LOCOMOTIVES IN SERVICE, TRACTIVE EFFORT, NUMBER OF FREIGHT-TRAIN CARS IN SERVICE AND TOTAL CAPACITY OF FREIGHT-TRAIN CARS

(RELATIVE FIGURES 1910-1914 = 100)

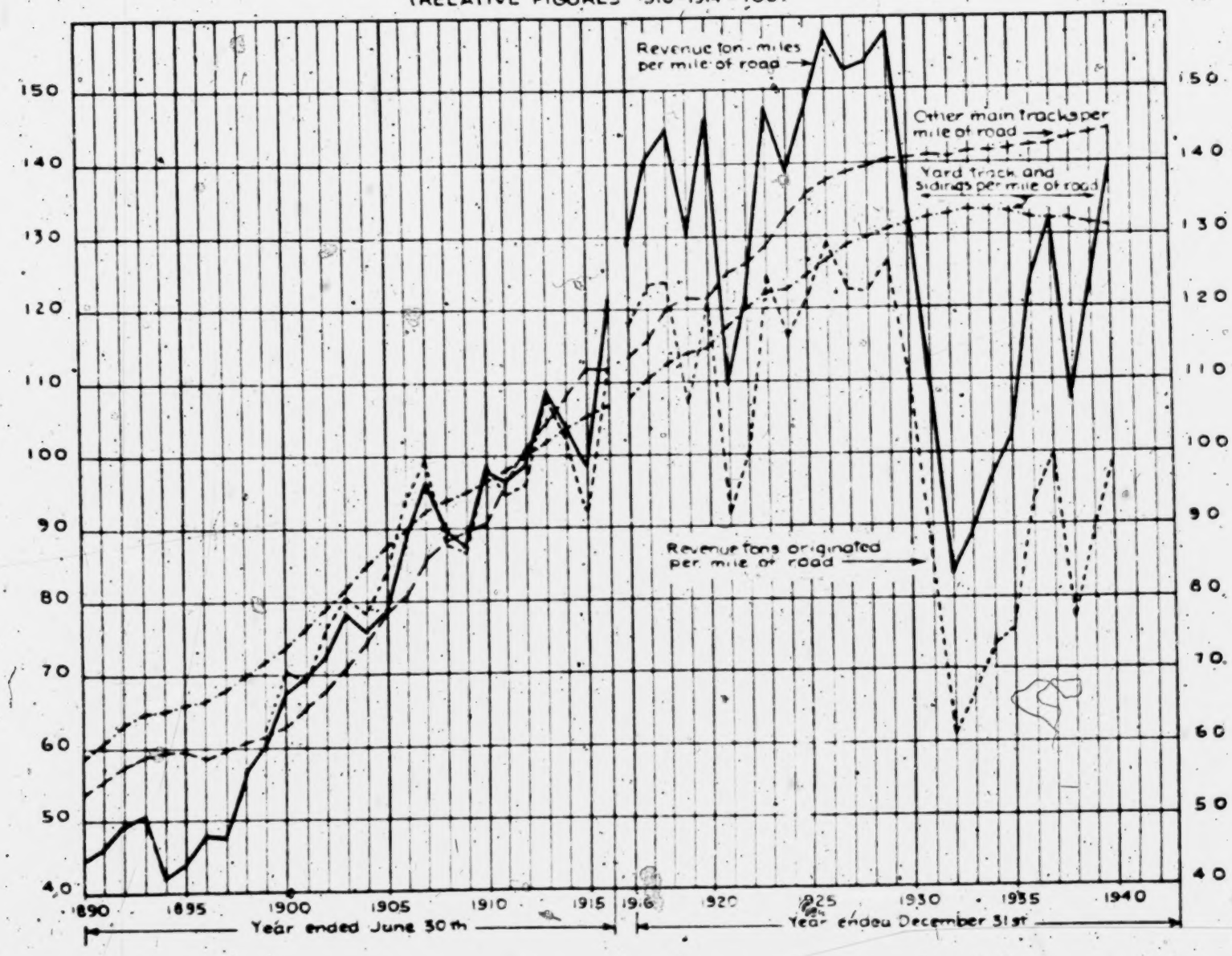


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CHART 17.

COMPARISON OF THE TREND OF REVENUE TON-MILES AND REVENUE TONS ORIGINATED WITH OTHER MAIN TRACKS AND YARD TRACK AND SIDINGS

(RELATIVE FIGURES 1910-1914 = 100)



4742

TABLE 43.—*Net additions and betterments to railroad plant between 1915 and 1941 based on original cost at 1910–14 prices, class I and II railroads*

Calendar year except as noted (1)	Amount (2)	Cumulative total (3)
1916[1]	$231,817,134	$231,817,134
1916[2]	138,411,901	370,229,035
1917	644,751,681	1,014,980,716
1918	192,628,788	1,207,609,504
1919	119,953,197	1,327,562,701
1920	184,161,113	1,511,723,814
1921	247,414,538	1,759,138,352
Subtotal	1,759,138,352	
Average, 1916–21	293,189,725	
1922	63,233,783	1,822,372,135
1923	323,170,611	2,145,542,746
1924	423,979,774	2,569,522,520
1925	238,480,316	2,808,002,836
1926	291,380,508	3,099,383,344
1927	237,676,614	3,337,059,958
1928	87,155,066	3,424,215,024
1929	280,226,544	3,704,441,568
1930	270,021,258	3,974,462,826
Subtotal	2,215,524,474	
Average, 1922–30	246,169,386	
1931	Cr. 83,844,378	3,890,618,448
1932	Cr. 60,530,817	3,830,087,631
1933	Cr. 194,078,406	3,635,989,225
1934	Cr. 246,052,806	3,389,936,419
1935	Cr. 207,192,253	3,182,744,166
1936	Cr. 151,705,124	3,031,039,042
1937	19,052,592	3,050,091,634
1938	Cr. 104,673,138	2,945,418,496
1939	Cr. 139,729,483	2,805,689,013
1940	5,341,361	2,811,030,374
1941	Cr. 136,812,917	2,674,217,457
Subtotal	Cr. 1,302,115,369	
Average, 1931–41	Cr. 118,374,124	
Grand total	2,674,217,457	

[1] For year ended June 30, 1916.
[2] For 6 months ended Dec. 31, 1916.

Relation of investment to traffic, 1915–30.

A study was made of the increase in traffic over the 15-year period 1915 to 1930. No one index will serve as an over-all measure of the trend in traffic volume over this period. On the one hand freight revenue ton-miles were not only increasing, but, because of the increase in the average length of haul, they were increasing more rapidly than were the tons originated (taking the United States as one system). On the other hand, passenger-train miles were decreasing. An average of the trend of traffic volume computed separately for freight road haul service, freight terminal service (origin and destination switching) and passenger service was used, weighted for the relative operating cost for each. The trend of passenger traffic was based equally on car-miles and train-miles as a substantial part of the operating expenses vary with each of these units.

As there is some lag between the increases in traffic volume and the increases in the investment made to accommodate such traffic (or to retain the desired surplus capacity) the count of traffic units for the beginning period was based on the 3-year period 1913–15. This period was selected as it represented the latest 3-year period prior to the effect of the First World War. The count at the close of the period was based on the 3-year period 1928–30. This marks the close of an era of consistently expanding plant. Both 1915 and 1930 saw some decline in traffic over the preceding 2 years. The traffic study was based on class I railroads only as the data for class II and III companies were not available. The elimination of the latter will not significantly affect the conclusions. The results are shown in the following table:

TABLE 44.—*Over-all increase in traffic volume, freight and passenger, between 1913–15 and 1928–30, class I railroads*[1]

Item (1)	Unit of measurement (2)	Percent increase in units (3)	Weighting based on 1930 exp. (4)	Weighted increase (5)
Freight traffic:				
Line-haul	Revenue ton-miles	46	[2] 86	37
Terminal	Revenue tons originated	26	17	4
Subtotal			73	31
Passenger traffic: [3]				
Line and terminal	Car-miles	17		
Line and terminal	Train-miles	−3		
Subtotal		7	27	2
Total freight and passenger			100	33

[1] Supporting detail appears in I. C. C. Docket No. 28300, exhibit 13, appendix L.
[2] Line-haul weighting includes allowance for intertrain and interchange switching at intermediate points.
[3] Passenger-miles decreased over the period.

The intent of the above table is to develop the trend insofar as possible in terms of the revenue-producing units of work performed, thus allowing credit for any increase in carrier efficiency over the period. The increase in traffic volume of approximately 33 percent was accompanied by a 20-percent increase in the investment, thus indicating that over the 15-year period the investment was approximately 60 percent variable with traffic volume.

This figure is an average for all carriers in the United States and hence it is high for branch lines or lines of very light traffic density and low for carriers whose traffic density is greater than the average.

Capital expenditures made to improve efficiency.

Some part of the capital expenditures for additions and betterments may be considered as made for the purpose of improving carrier efficiency independent of the volume of traffic. Examples are found in the increased use of machines in roadway work and of heavier motive power in train operation. However, while some part of the investment may be for the purpose of obtaining greater efficiency in the handling of a constant volume of traffic, in the long run additions and betterments in larger yards, added sidings, double tracking, expensive signal installments, heavier motive power, grade reductions, etc., will reach a point where they can no longer be economically justified on the basis of the existing traffic. When the point of diminishing returns on added capital investment is reached the flow of capital will greatly diminish until such time as the added volume of traffic again justifies new capital investment. For this reason the major part of the additions and betterments are believed chargeable to added traffic. References hereinabove to the sharp response of additions and betterments to traffic changes support this view. The further point is made that it has only been through capital additions and betterments that the out-of-pocket operating expenses have been kept as low as they have been.

Effect of traffic on investment based on relationship of the investment per mile of road with the density per mile of road.

In the preceding chapter there was reviewed an analysis based on the relationship of the operating expenses per mile of road to the density per mile of road. The same study was repeated except that the relationship studied was that of the cost of a 5½-percent

[fol. 4743]

4743

3547

return per mile of road to the density per mile of road. The return was based upon the recommended rate-making value for each carrier as of December 31, 1939, furnished by the Commission's Bureau of Valuation for the purpose of I. C. C. Docket No. 28300. This procedure serves to indicate the long-term effect of increased density on the investment per mile of road. The results based on this method of approach should be generally free of the influence of those capital expenditures which cannot, in the long run, be attributed to the influence of traffic density. The use of the 5½-percent return per mile of road gives the same results that would have been obtained using the value per mile of road.

The same carriers were used as in the operating expense study except that in the eastern district, the Pittsburgh & West Virginia, in the Southern district, the Clinchfield, and in the Western district, the Denver & Salt Lake and the Utah were excluded because of the abnormally high investment per mile of road for these carriers. These roads cannot be considered as typical of their respective districts.

The results of the studies appear in charts 18, 19, and 20.[79] The segregation of the railroads by districts follows that used in the Commission's Statistics of Railways in the United States except that the Toledo, Peoria & Western, having been assigned to the Eastern territory in the cost studies, was transferred to this district from the Western district. As a matter of interest the data in the charts are identified by regions although the trend line was developed only by districts.

The portion of the return (i. e., value) which was found to vary with traffic volume is shown below for the United States and for each district: [80]

	Percent
Eastern district	73
Southern district	65
Western district	57
United States	68

Summary.

The usual study of the out-of-pocket cost for added traffic eliminates any consideration for the return on added capital. This overlooks the fact that over the long-term period the ability of the carriers to hold a substantial part of their operating expenses constant in the face of substantial increases in traffic volume has only been possible through added capital expenditures. The study covering the periods 1913–15 and 1928–30 as well as the above study based on a comparison of roads of different traffic densities indicates that for the country as a whole a given percentage increase in traffic volume has been accompanied over a period of time by an increase in the investment which for the railroads as a whole was approximately 50 to 70 percent as great. Because of the relative smallness of the possible increments of change in the total plant in any one year, this variability becomes apparent only when the trend in traffic persists for some time. However, a study of the forces at work indicates that even though the traffic should remain relatively static a substantial part of the railroad plant must be viewed as being in a "state of equilibrium" rather than as fixed and permanent.

The above figures represent the average or central tendency for the entire United States. They include not only the road mileage where the density is heavy and additions and betterments have been very large, but also road mileage where the traffic density is very light and the road investment comes near to representing the original "starting cost" necessary for the rendition of a minimum of transportation service. The figures given above are, therefore, high for the lines of light density and low for the heavy trunk lines.

Cost of capital.

The above observations have dealt with the expansion and contraction of the physical plant. There remains to be considered how the change in the cost of capital, i. e., interest and dividends, is affected by these changes in the physical plant. The fundamental assumption is made that the payments for the use of capital cannot indefinitely be divorced from earning power which, in turn, is closely related to traffic volume. As long as traffic is rising and the plant is expanding, funds for capital expansion are necessary. The out-of-pocket cost studies should make allowance for the minimum return necessary to attract the needed capital.

The relation of the cost of capital to traffic change when the traffic is declining is more irregular and possibly more spectacular than during periods of increasing traffic. If funds are available, outstanding issues of securities may be voluntarily retired, although from a practical standpoint money is seldom available for this purpose in periods of traffic decline. Dividend payments may be reduced or stopped. Where the loss in traffic and the resultant reduction in revenues prevents the meeting of interest obligations or the payment of principal falling due, bankruptcy ensues with a possible scaling down of the capital structure. The long-term debt of railroads in reorganization proceedings before the Commission as of October 31, 1941, was scaled down from $3,993,901,463 to $1,729,134,094, or 57 percent.[81] The reduction in the annual fixed charges were as follows:

	Annual fixed charges [1]
Before reorganization	$142,191,942
After reorganization	41,043,119
Reduction	101,148,823

[1] Fixed charges include rent for leased roads and equipment; fixed interest on funded debt, interest on unfunded debt, and amortization of discount on funded debt.

Chart 21 provides a comparison of the trend in revenue ton-miles, net capitalization, interest accrued annually on funded debt, and dividends declared (per mile of road).[82] It will be noted that between the period 1913–15 and the period 1928–30 an increase in the revenue traffic handled of approximately 33 percent (table 44) was accompanied by the following increases: Net capitalization[83] 19 percent, interest accrued on funded debt 30 percent, and dividends declared 46 percent. Following the reversal of the trend in traffic in 1930 the dividends dropped much more rapidly than the traffic volume. The interest payments also declined, though more slowly.[84]

[79] Supporting detail appears in I. C. C. Docket No. 28,300, exhibit 12, appendix M, including the figures for the 4 railroads excluded.

[80] The figure for the United States was computed by dividing the sum of the out-of-pocket portion of the return for the districts by the total return for the United States.

[81] 55th Annual Report of the Interstate Commerce Commission, November 1, 1941, pp. 73–78. Statement covers 28 carriers for 24 of which the plans had been approved by the Commission. For the remaining 4 the data were based on the examiner's proposed plans.

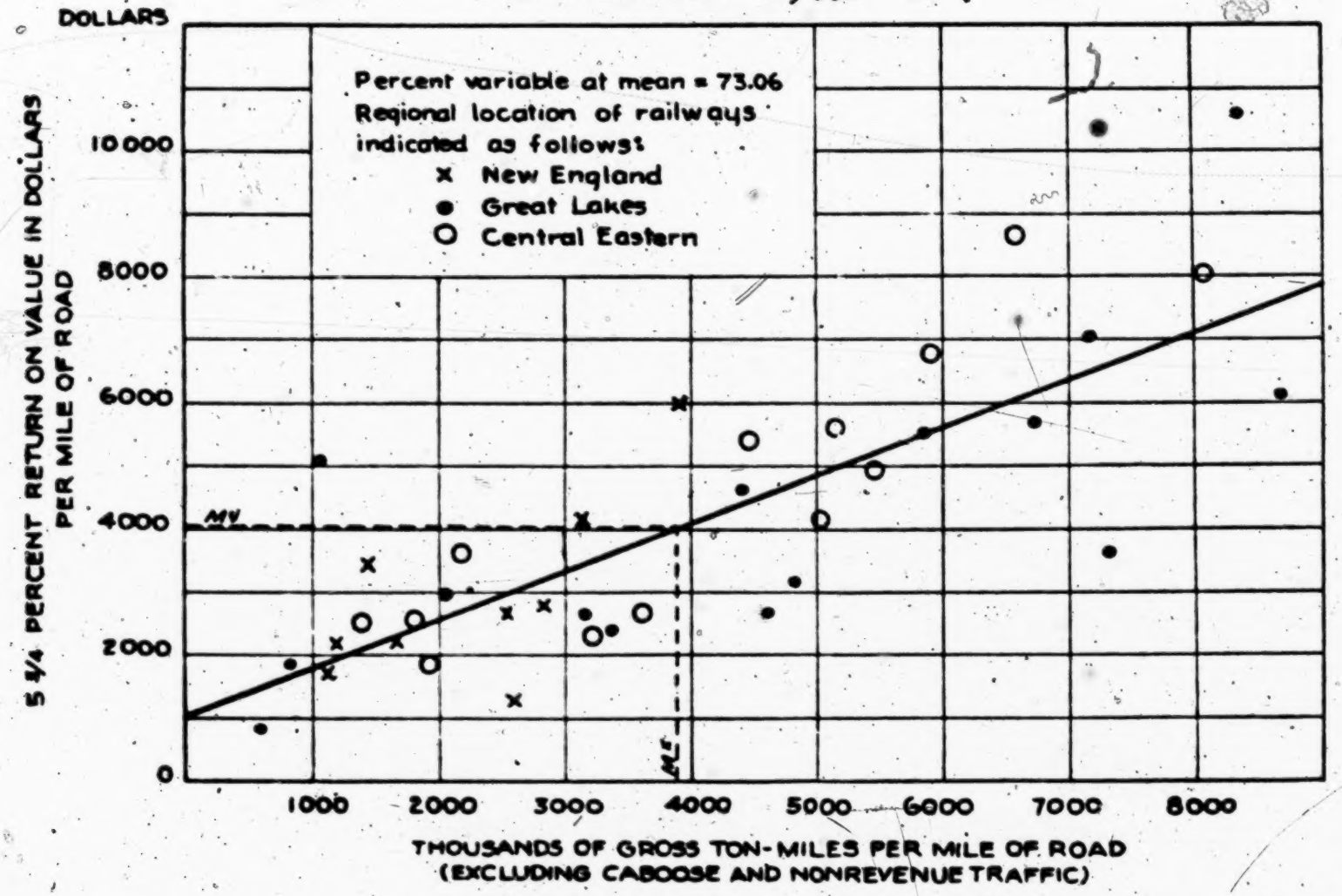
[82] Supporting detail appears in I. C. C. Docket No. 28300, exhibit 12, appendix N. Although no special study was made of railway tax accruals they are shown on chart 21 for purposes of information.

[83] Consists of total railway capital outstanding minus stocks and bonds owned by railways.

[84] The interest accrued is not representative of interest paid during the depression period.

CHART 18. 5 3/4 PERCENT RETURN ON VALUE PER MILE OF ROAD RELATED TO GROSS TON-MILES PER MILE OF ROAD

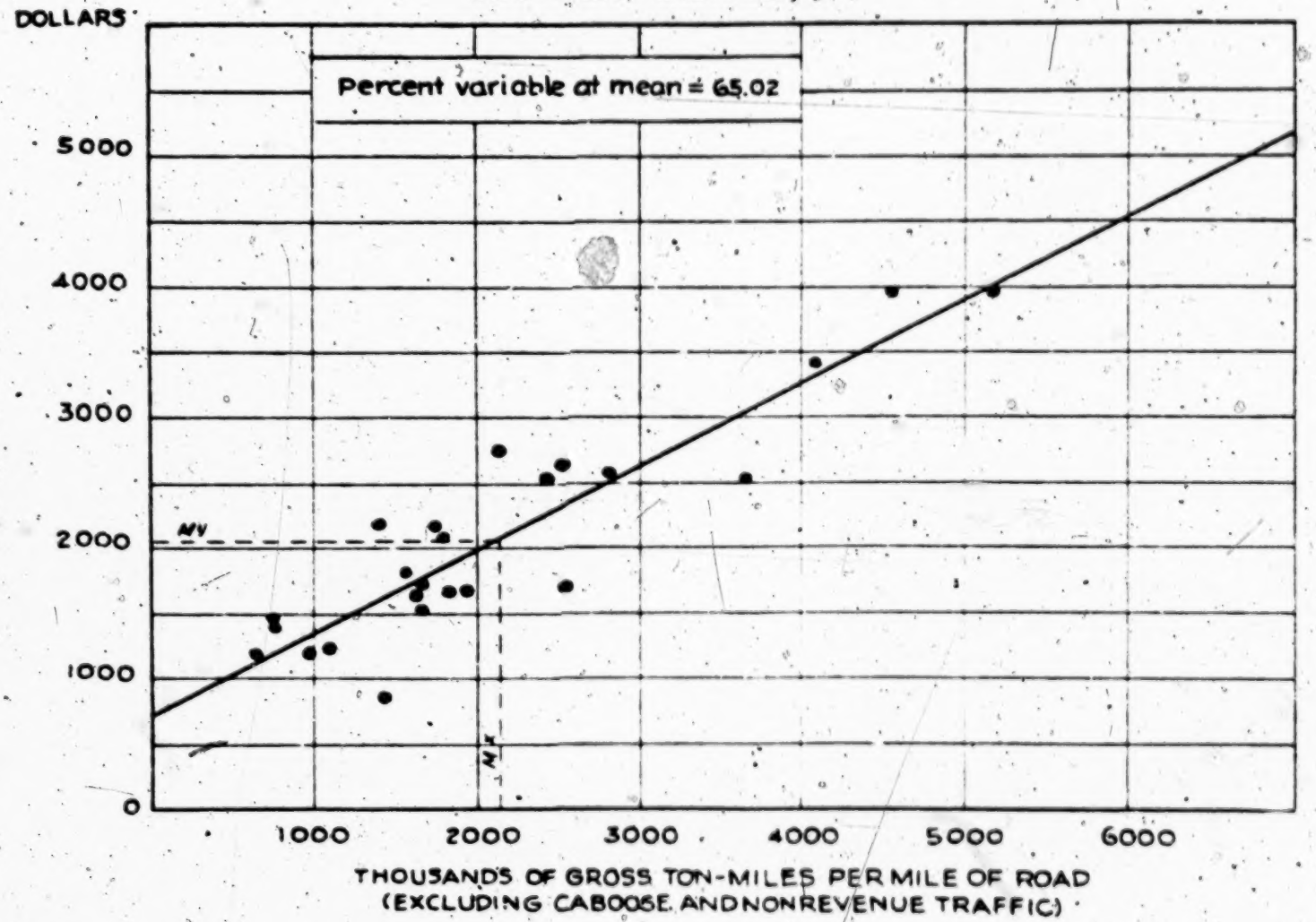
EASTERN DISTRICT, 1939



4745

CHART 19. 5 3/4 PERCENT RETURN ON VALUE PER MILE OF ROAD RELATED TO GROSS TON-MILES PER MILE OF ROAD

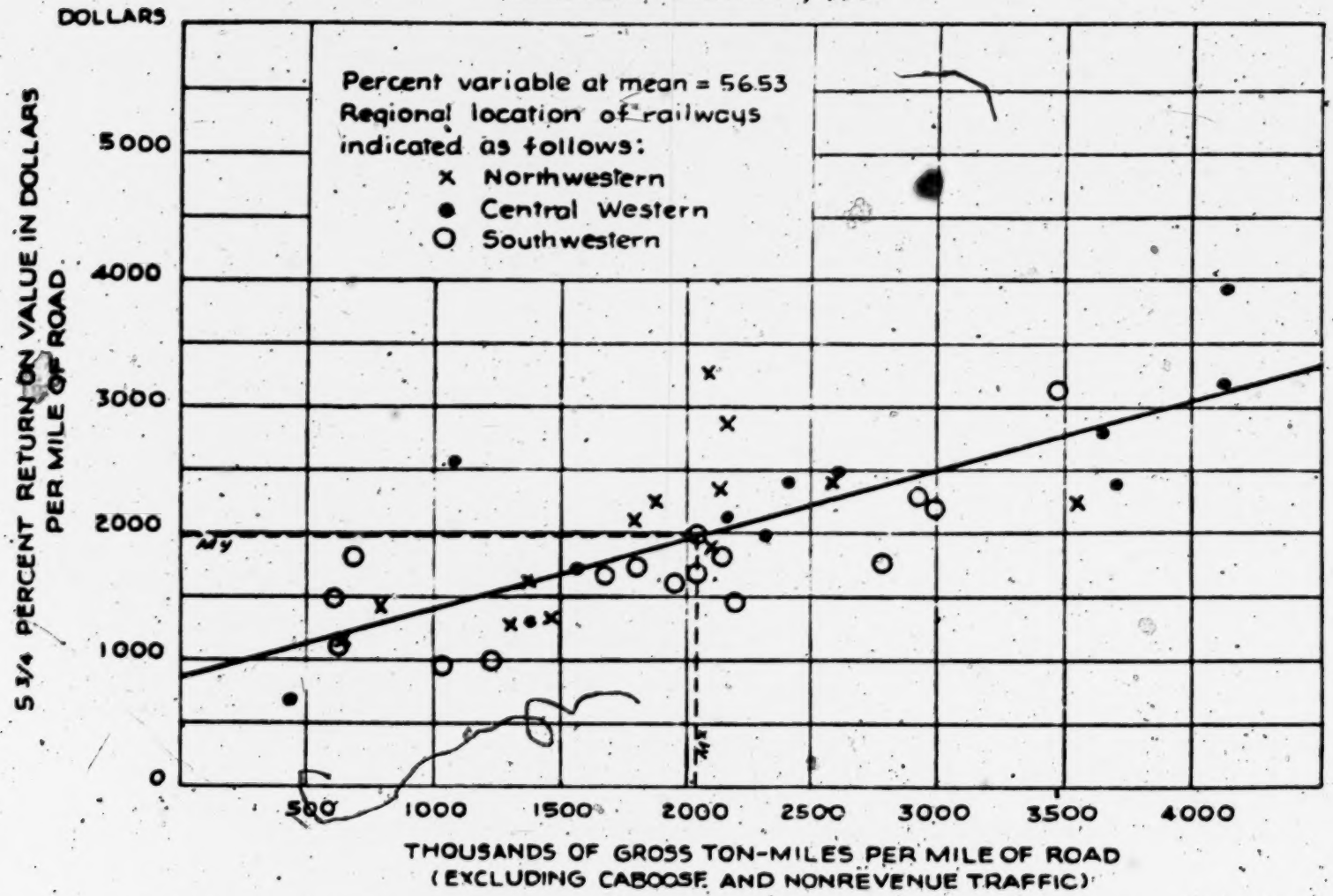
SOUTHERN DISTRICT, 1939



4746

CHART 20. 5¾ PERCENT RETURN ON VALUE PER MILE OF ROAD RELATED TO GROSS TON-MILES PER MILE OF ROAD

WESTERN DISTRICT, 1939

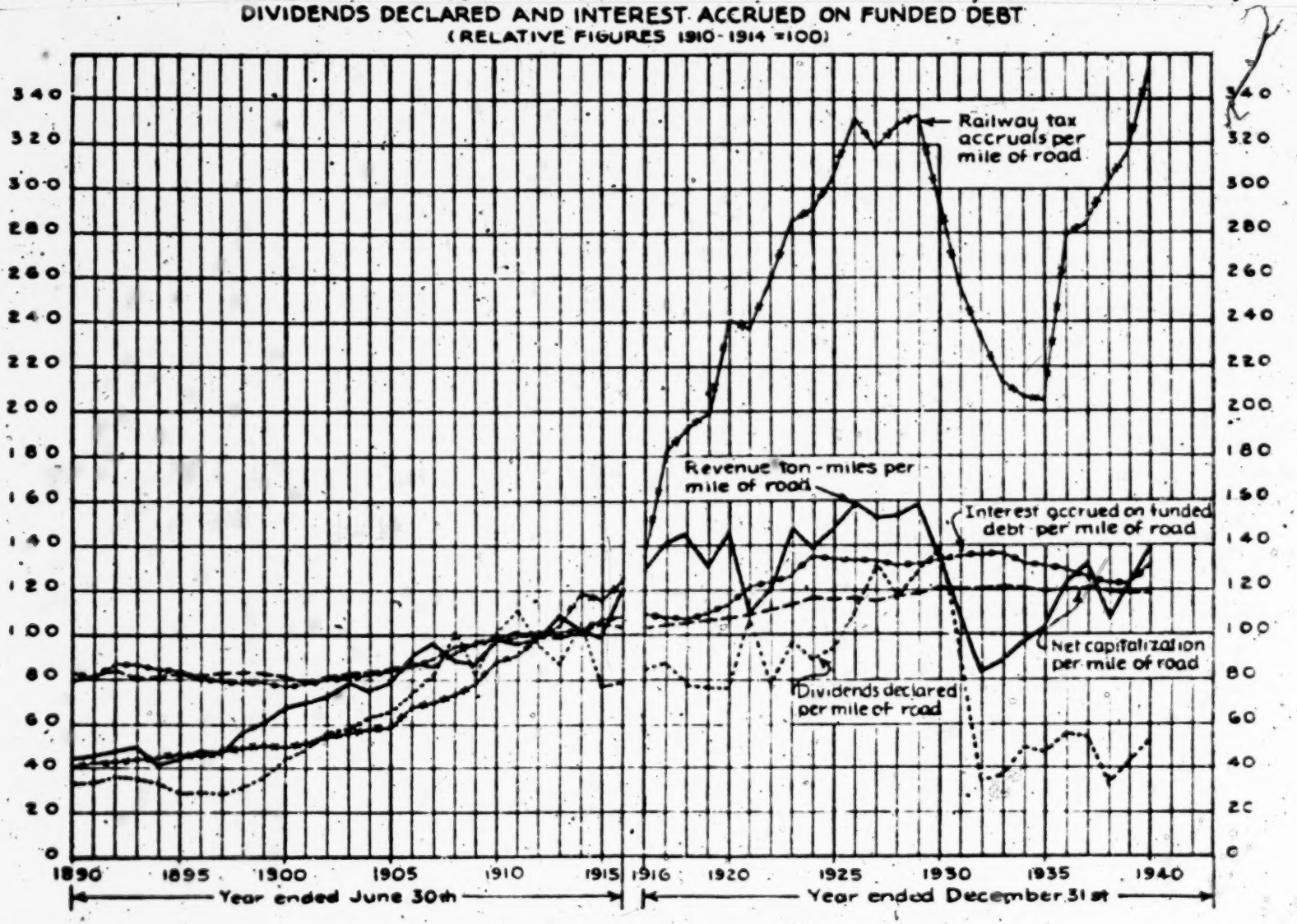


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CHART 21.

COMPARISON OF THE TREND OF REVENUE TON-MILES WITH RAILWAY TAX ACCRUALS, NET CAPITALIZATION, DIVIDENDS DECLARED AND INTEREST ACCRUED ON FUNDED DEBT

(RELATIVE FIGURES 1910-1914 =100)



4748

APPENDIX D

DEVELOPMENT OF TERRITORIAL COSTS BASED ON THE DIRECT DISTRIBUTION OF THE CONSTANT EXPENSES [84]

Procedure in computing unit costs.

The conclusions reached in chapters XI and XII hereto were to the effect that between 70 and 80 percent of the operating expenses, rents, and taxes and between 50 and 70 percent of the investment were variable with changes in traffic volume over an extended period of time. Based on a 4-percent return the out-of-pocket expenses for the carriers as a whole constitute from 70 to 75 percent of their total freight expenses.[85] If one relates the carload out-of-pocket expenses to the full distributed carload expenses increased for less-than-carload and passenger deficits (1939) the ratio drops to roughly between 60 and 65 percent (based on 1939 deficits).

The freight out-of-pocket operating expenses, rents, and taxes developed for all class I railroads in this proceeding are based on 72 percent of the total of these expenses.[87] This percentage was computed by applying to each account the applicable percentage shown in appendix E hereto. No change has been made in these figures by reason of the further research reviewed in chapters XI and XII as they are within the range referred to in the preceding paragraph.[88] An allowance for the out-of-pocket cost for a 4-percent return on the value of the property has been added to the out-of-pocket operating expenses, rents, and taxes. The allowance for return has been computed on the basis of 50 percent of the road investment and 100 percent of the equipment investment being variable in the long run with traffic volume. The treatment of the investment in equipment as 100 percent variable with traffic volume is based on the assumption that the carrier's ownership of motive power and freight-train cars over an extended period will adjust itself, with some lag, to traffic needs. With 100 percent of the equipment investment treated as variable, the use of 50 percent for the road investment results in a weighted average for both of 57.5 percent.[89] This approximates the midpoint between the figures of 50 and 70 percent referred to above.

The above conclusions as to out-of-pocket costs are based on studies which relate the changes in the expenses and investment per mile of road to the changes in the traffic per mile of road, or studies which were limited to periods of time when the changes in the total miles of road operated in the United States were relatively very small. This method of approach eliminates the effect of the added traffic, added expenses and added investment occasioned by the expansion of the carriers' road mileage during their construction periods.

The cost scales based on the separate treatment of the out-of-pocket and constant costs are shown in appendix A, table 1, for the following territories and types of equipment:

Territory and types of equipment	
New England (territory 1)	Box, gondola and hopper, and tank.
Eastern, excluding New England and Northern Illinois (territory 2)	Do.
Eastern, including New England (territories 1, 2).	All types of equipment.
Pocahontas (territory 5)	Do.
Eastern, including New England and Pocahontas (territories 1, 2, 5).	Box, gondola and hopper, and tank.
Southern (territory 6)	All types of equipment.
Western (territory 11)	Do.
United States (territory 12)	Do.
State of Kentucky	Box and gondola and hopper.
Eastern, including New England and the State of Kentucky	Do.
Eastern, including New England, Pocahontas, and State of Kentucky	Do.
Southern, excluding State of Kentucky	Do.
Eastern, including New England and Southern (territories 1, 2, 6)	Do.

Because of time limitations, and as the individual differences in the costs for the Western Trunk Line, Southwestern and Mountain Pacific territories on the one hand and the total of the Western territories on the other hand, are generally small,[90] unit costs in the Western district are shown only for territory 11, total Western.

The constant expenses common to all services, carload, less-carload, and passenger, are distributed on a revenue ton and revenue ton-mile basis over the carload traffic after deducting the contributions if any, that the less-carload and passenger services make to such constant costs. The purpose of this distribution was discussed in chapter I hereto.

The constant expenses identifiable with terminal operations at origin and destination points [91] are distributed over the revenue tons originated. Such expenses principally include the constant portion of the maintenance and operation of yards and the constant portion of the station clerical expense. The constant expenses identifiable with line-haul operations such as maintenance of way, dispatching, etc., are distributed over the line-haul revenue units, i. e., revenue ton-miles. Such separation of the constant

[84] Data from I. C. C. Docket No. 28300, exhibit 12, ch. VI.

[85] The freight out-of-pocket operating expenses, rents, and taxes constitute 85 percent of the total freight out-of-pocket costs. The return at 4 percent constitutes 15 percent. See table 45 hereto, columns 5 and 8.

[87] The figure of 72 percent is a combined figure for carload and less-carload expenses.

[88] The completion of the studies reviewed in chs. XI and XII indicate that the out-of-pocket expenses in the East, considering the carriers as a whole, constitute a somewhat larger percent of the total expenses than in the South and West. However, because of the relatively small territorial differences and the limitations in time a uniform percentage was applied in all territories.

[89] Recommended value of freight-train cars $1,510,200,000; passenger-train cars $[illegible]; steam and other locomotives $829,100,000; total equipment $2,781,950,000; road, $15,230,776,000; grand total, $17,935,851,000; class I carriers. Value furnished by Commission's Bureau of Valuation as of Jan. 1, 1940. Class I carriers (0.50×15 percent + 0.5×85 percent = 57.5 percent).

[90] Separate costs for the Southwestern, Western Trunk Line, and Mountain Pacific territories were developed for all classes of equipment in I. C. C. Docket No. 28300, exhibit 3. The figures were based upon the apportionment of the constant costs on the basis of the out-of-pocket costs. For territorial comparisons on this basis see ch. III hereto, tables 3 to 5.

[91] Excludes interchange and interchange switching treated as variable with length of haul.

4749

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3553

penses between terminal and line-haul is based on the assumption that the constant expenses incurred in terminals, after excluding switching treated as variable with length of haul, are solely related to terminal operation, while the constant expenses incurred in line haul are solely related to the line service. The result is that the traffic is charged only with those constant expenses incurred in the performance of the service, line or terminal, which it receives.

Less-carload and passenger deficits included in the carload full distributed expenses are distributed between line and terminal on the basis of the separation of the carload out-of-pocket costs between line and terminal. The burden is thus apportioned between short-haul and long-haul traffic on the same basis as the out-of-pocket costs are distributed.

The principle followed in distributing the expenses is illustrated in table 45. The out-of-pocket costs for each service are shown on lines 1–4. The solely related expenses are shown on lines 5 to 7.[9] The expenses common to all services are shown on lines 9–11.[10] All expenses were separated between line and terminal. The contribution of each service, carload, less-carload, and passenger, to the constant costs common to all services, is shown on line 16.

[9] The estimated constant expenses solely related to passenger service are included with the passenger out-of-pocket costs, lines 1-4.

[10] The constant expenses solely related to a given class of service includes those expenses which, although treated as constant for changes in the volume of traffic handled, would be eliminated if the entire service were eliminated. For example, this includes the constant portion of the operating expenses, rents, taxes and return attributable to the operation of ticket boxes, freight house tracks, land used by these facilities, etc. Such constant costs solely related to a given service need not be considered when determining the out-of-pocket cost of a single shipment or movement. They must be considered, however, in determining the out-of-pocket cost of rendering the total service, i. e., carload, less-carload, or passenger. They must also be considered when determining the contribution which each of these services makes toward those constant expenses which are common to all railroad services. Approximations entering into the separation of the constant expenses between those solely related to a service and those common to all services do not affect the computation of the out-of-pocket costs in any of the services, or the computation of the full distributed expense for carload traffic. For the purpose of obtaining a more correct measure of the passenger deficits, using territory 12 for purposes of illustration, the common constant maintenance-of-way expenses apportioned to passenger service were regrouped with the expenses treated herein as common to all services.

TABLE 45.—*Distribution of total operating expenses, rents, taxes, and return for all class I railroads between carload, less-carload, and passenger services and between out-of-pocket costs, constant expenses solely related to each service and constant expenses common to all services; and computation of the contribution of each service to the constant expenses*

UNITED STATES

Line No.	Item	Source[1]	Carload			Less-carload		
			Terminal	Line	Total	Terminal	Line	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Out-of-pocket costs:[2]							
1	Operating expenses, rents and taxes	(3)	$299,921,389	$1,191,329,357	$1,490,350,746	$64,329,192	$136,020,119	$200,348,311
2	Return on rolling equipment—4 percent	(3)	28,913,839	47,429,483	76,343,322	2,392,989	6,779,267	9,082,174
3	Return on road value, variable portion—4 percent	(3)	25,303,932	176,009,423	201,373,355	2,421,553	14,959,584	17,348,137
4	Subtotal out-of-pocket cost	Lines 1-3, or table 5, line 14	353,239,160	1,415,428,263	1,768,667,423	69,052,654	157,758,968	226,811,622
	Constant expenses solely related to each service:							
5	Operating expenses, rents, and taxes	Table No. 6, line 26, columns (4)-(7)	130,317,854		130,317,854	52,340,082	8,080,461	60,421,143
6	Return on road value, constant portion 4 percent	Table No. 6, line 34, columns (4)-(7)						
7	Subtotal solely related constant costs	Line 5+line 6	130,317,854		130,317,854	52,340,082	8,080,461	60,421,143
8	Total out-of-pocket plus solely related expenses	Line 4+line 7	483,557,014	1,415,428,263	1,898,985,277	121,392,736	165,839,429	287,232,765
	Constant expenses common to all services:							
9	Operating expenses, rents, and taxes	Table No. 6, line 26, columns (8) and (9)						
10	Return on road value, constant portion 4 percent	Table No. 6, line 34, columns (8) and (9)						
11	Subtotal common constant costs	Line 9+line 10						
	Total expenses:							
12	Total, lines 8 and 11	Line 8+line 11	483,557,014	1,415,428,263	1,898,985,277	121,392,736	165,839,429	287,232,765
13	Loss and damage claim payments	Exhibit 3, table 85			14,015,030			4,597,963
14	Total	Line 12+line 13			1,913,000,307			291,747,728
15	Revenues				[3] 3,087,447,685			[7] 226,670,556
16	Income or deficit over out-of-pocket costs plus solely related expenses (indicate (+) or (−))	Line 15−line 14			+1,174,447,378			−65,077,093

Line No.	Item	Source[1]	Passenger[1]	Common to all services			Grand total
				Terminal	Line	Total	
	(1)	(7)	(9)	(10)	(11)	(12)	(13)
	Out-of-pocket costs:[2]						
1	Operating expenses, rents, and taxes	(3)	$720,147,318				$2,410,846,372
2	Return on rolling equipment—4 percent	(3)	28,169,704				110,595,209
3	Return on road value, variable portion—4 percent	(3)	85,253,999				304,615,488
4	Subtotal out-of-pocket cost	Lines 1-3, or table 5, line 14	830,571,018				2,826,057,069
	Constant expenses solely related to each service:						
5	Operating expenses, rents, and taxes	Table No. 6, line 26, columns (4)-(7)					190,738,997
6	Return on road value, constant portion—4 percent	Table No. 6, line 34, columns (4)-(7)					
7	Subtotal solely related constant costs	Line 5+line 6					190,738,997
8	Total out-of-pocket plus solely related expenses	Line 4+line 7	830,571,018				3,016,796,057

See footnotes at end of table.

3554 [fol. 4750]

4750

[92] The estimated constant expenses solely related to passenger service are included with the passenger out-of-pocket costs, lines 1–4.

[93] The constant expenses solely related to a given class of service includes those expenses which, although treated as constant for changes in the volume of traffic handled, would be eliminated if the entire service were eliminated. For example, this includes the constant portion of the operating expenses, rents, taxes and return attributable to the operation of freight houses, freight-house tracks, land used by these facilities, etc. Such constant costs solely related to a given service need not be considered when determining the out-of-pocket cost of a single shipment or movement. They must be considered, however, in determining the out-of-pocket cost of rendering the total service, i. e., carload, less-carload, or passenger. They must also be considered when determining the contribution which each of these services makes toward those constant expenses which are common to all railroad services. Approximations entering into the separation of the constant expenses between those solely related to a service and those common to all services do not affect the computation of the out-of-pocket costs in any of the services, or the computation of the full distributed expense for carload traffic. For the purpose of obtaining a more correct measure of the passenger deficits, using territory 12 for purposes of illustration, the common constant maintenance-of-way expenses apportioned to passenger service were regrouped with the expenses treated herein as common to all services.

[fol. 4751]

4751

TABLE 45.—*Distribution of total operating expenses, rents, taxes, and return for all class I railroads between carload, less-carload, and passenger services and between out-of-pocket costs, constant expenses solely related to each service and constant expenses common to all services; and computation of the contribution of each service to the constant expenses*—Continued

UNITED STATES—Continued

Line No.	Item (1)	Source [1] (2)	Passenger [2] (9)	Common to all services: Terminal (10)	Common to all services: Line (11)	Common to all services: Total (12)	Grand total (13)
	Constant expenses common to all services:						
9	Operating expenses, rents, and taxes	Table No. 6, line 26, columns (8) and (9)		$449,983,082	$610,622,445	$960,605,527	$960,605,527
10	Return on road value, constant portion—4 percent	Table No. 6, line 34, columns (8) and (9)		60,831,713	343,783,775	304,615,488	304,615,488
11	Subtotal common constant costs	Line 9+line 10		110,694,795	854,406,220	965,101,015	965,101,015
	Total expenses:						
12	Total, lines 8 and 11	Line 8+line 11	830,871,015	110,694,795	854,406,220	965,101,015	[3] 3,961,897,072
13	Less and damage claim payments	Exhibit 3, table 85					18,522,693
14	Total	Line 12+line 13	830,871,015				4,000,419,765
15	Revenues		[4] 632,035,908				3,946,153,150
16	Income or deficit over out-of-pocket costs plus solely related expenses (indicate (+) or (−))	Line 15−line 14	−198,835,107			965,101,015	[5] −54,266,407

[1] All table references are to I. C. C. Docket No. 28300, exhibit 13.

[2] Line 1 includes estimated out-of-pocket passenger expenses plus expenses solely related to passenger service from I. C. C. Docket No. 28300, exhibit 13, table 5, line 26. Line 2 hereto from same source, lines 26 and 30. Line 3 hereto from same source, line 32.

[3] Excludes loss and damage claim payments, which are excluded from cost scales, see line 13.

[4] I. C. C. Docket No. 28300, exhibit 13, table No. 8, lines 1–14, sets forth the distribution of the total freight out-of-pocket costs (operating expenses, rents, and taxes plus return) between carload and less carload and in the case of carload, the distribution between terminal and line haul. For the purpose of this table it was necessary first to provide a similar distribution separately for operating expenses and for return and secondly to separate the less carload expenses between line and terminal. See I. C. C. Docket No. 28300, exhibit 12, appendix O for detail.

[5] Revenue deficiency. Total operating expenses, rents, and taxes from I. C. C. Docket No. 28300, exhibit 3, table 87, column (41), $2,436,300,985; return at 4 percent on total freight and passenger value (4 percent of $17,997,554,419 based on summary of Rail Cost Form A, schedule F, sheet 1, lines 2 and 3), $719,826,176; passenger-operating expenses, rents, and taxes from Preliminary Abstract (1939), Summary No. 1, p. 7, $982,989,796; and passenger portion of expenses of handling nonrevenue freight from summary of Rail Cost Form A, schedule E, sheet 3, line 32, $40,294,215; total, $4,180,110,972.

[6] Computed as follows: Total rail-line transportation revenues assignable to freight service from Preliminary Abstract, Summary No. 3 ($3,303,714,418), plus demurrage, $6,302,618, and joint facility operating revenue, $1,010,184, total, $3,311,017,240 minus less-carload revenues from line 14, column (8) hereto.

[7] Computed as follows: Less-carload revenues from summary of Cost Form A, Schedule E, sheet 3, line 25 ($525,331,727), minus payments for pick-up and delivery from Summary of Cost Form A, schedule F, sheet 3, line 22 ($24,662,189).

[8] From Preliminary Abstract, Summary No. 3, total railway operating revenues assignable to passenger and allied services.

[9] Represents amount by which freight and passenger revenues failed to cover total freight and passenger operating expenses, rents, and taxes, and 4 percent return on freight and passenger value (10.09).

Although the determination of the expenses solely related to each service is subject to some degree of approximation, the results generally indicate that for the year 1939 neither the less-carload service nor the passenger service, considered as a whole, covered the total of their out-of-pocket costs and the constant expenses solely related to them. They made no contribution, of course, toward the constant costs common to all services. The carload service, considered as a whole, bore the entire burden of meeting the constant costs common to all services amounting to $965,101,015 and in addition provided for all of the less-carload and passenger deficits with the exception of $54,266,407. This latter figure represents the amount by which the total freight and passenger revenues failed to cover the total freight and passenger operating expenses, rents, taxes [9] and a 4-percent return on the freight and passenger value.

Carload unit costs.

Table 46 shows the form used in assembling the carload unit costs for the purpose of the carload-cost scales shown in appendix A, tables 1 and 3. For purposes of computation the entire constant expenses common to all services were distributed over the carload traffic (lines 8–10), with a subsequent reduction by the contribution, if any, made to the common expenses by the less-carload and passenger services (lines 11–12). The deficits, if any, in the less-carload and passenger services are shown in lines 15–16. This table thus shows all the elements entering into the construction of the carload unit costs.

Attention is directed to the fact that the unit carload constant expenses, line and terminal, for a given territory will be the same for all weights of carloads and all types of equipment.

[9] Includes Federal income taxes amounting to $32,835,400 for 1939. (From Statistics of Railways in the United States, table 106, 1940.)

TABLE 46.—*Carload unit costs—25-ton load moving in box cars—Total United States territory* [1]

Line No.	Item (1)	Costs (cents): Terminal cost per 100 pounds (2)	Costs (cents): Line-haul costs per 100 pounds per mile (3)
	Out-of-pocket costs:		
1	Operating expenses, rents and taxes	2.855	0.018284
2	Return on value of equipment—4 percent	.276	.000768
3	Return on value of road—4 percent	.211	.002520
4	Subtotal	3.342	.021572
	Constant costs solely related to carload service:		
5	Operating expenses, rents and taxes	.744	....
6	Return on value of road—4 percent		
7	Subtotal	.744	
	Constant costs common to all services:		
8	Operating expenses, rents and taxes	.053	.000687
9	Return on value of road—4 percent	.473	.005105
10	Subtotal	.526	.011992
11	Contribution by less-carload service [2]		
12	Contribution by passenger service [2]		
13	Total contribution by other services		
14	Constant expenses less less-carload and passenger contribution	.526	.011992
	Deficits in less-carload and passenger services:		
15	Less-carload deficit	.049	.000748
16	Passenger service deficit	.322	.005542
17	Constant expenses (less contribution) and plus deficit	1.671	.018319
18	Graded total expense to be borne by carload traffic to provide 4 percent return on total value	4.713	.037891

[1] See appendix A, table 3.

[2] Contribution, if any, divided by carload traffic units.

Less-carload unit costs.

Table 47 shows the elements included in the less-carload unit costs, namely, the out-of-pocket expenses plus those constant costs solely related to the less-than-

3556 [10] 4752

carload service. One hundred percent of the less-than-carload constant expenses incurred in terminal operation were assumed to be solely related to the less-than-carload service. Expense items included are station clerical work, platform handling, maintenance of tracks used in classification, transfer and freight-house switching and a part of the general overhead. These items were included as it is believed the major part of such expenses could be eliminated if all less-than-carload service were abandoned. As some indeterminate part of these expenses is no doubt common to all services, this treatment overstates in some measure the operating expenses, rents, and taxes solely related to less-than-carload service.

On the other hand, as the constant portion of the terminal property solely related to the less-carload services could not be identified on the basis of the information presently available, the return of 4 percent on such property was treated as common to all services. Properties thus included were less-carload warehouses, freight-house tracks and leads and the land used by these facilities. This procedure results in some understatement of the constant expenses solely related to less-carload service.

TABLE 47.—*Less-carload unit costs—5-ton load moving in box-cars, territory 12—total United States*[1]

Line No.	Item	Costs (cents)	
		Terminal cost per 100 pounds	Line-haul costs per 100 pounds per mile
	(1)	(2)	(3)
	Out-of-pocket costs:		
1	Operating expenses, rents and taxes	21.120	0.09658
2	Return on value of equipment—4 percent	.720	.00127
3	Return on value of road—4 percent	.735	.00047
4	Subtotal	22.595	.10033
	Constant costs solely related to less-carload service:		
5	Operating expenses, rents and taxes	17.730	.00456
6	Return on value of road—4 percent		.00000
7	Total constant costs	17.730	.00456
8	Grand total	40.325	.10529

[1] See appendix A, table 3. The less-carload costs include only the out-of-pocket costs plus the estimated constant costs solely related to less-carload traffic.

Chart illustrating the development of the carload fully distributed expense.

The chart shown in appendix A, table 3 was prepared to show graphically the development of the cost data. It shows the relative significance of the principal elements entering into the computation of the out-of-pocket costs and the carload full-distributed expenses. For purposes of illustration the data for a 25-ton load moving in boxcars, territory 12 (United States) are used. The passenger deficit as shown in this chart was computed by subtracting the passenger revenues from the estimated passenger out-of-pocket costs after reallocating part of the passenger expenses to those constant expenses common to all services. The effect of this was to reduce the passenger deficit and correspondingly increase the constant expenses common to all services. This procedure does not affect either the carload out-of-pocket or the carload full-distributed expense. The purpose was merely to provide a truer picture of the passenger deficit as a matter of illustration. Except for this illustration the passenger deficit, as a matter of convenience, was based on the passenger deficits as reported in the annual report, schedule 300 I.

Distribution of the constant costs based on a consideration of ability to pay.

The treatment in this study of the constant costs common to all services has been based upon the practical procedure of determining the contribution which the less-carload and passenger services have made toward such constant costs and distributing the remainder as a burden which must be borne by the carload traffic as a whole if the various services, including the carload freight service itself, are to survive. Any adjustments in rates or costs which will increase the contribution of the less carload and passenger services toward the constant costs will correspondingly relieve the burden laid on the carload traffic.

No attempt has been made to make any statistical apportionment of the constant expenses common to all services over the less-carload and passenger services for the reason that expenses of this character are not capable of direct assignment to any one class of traffic as compared to another. Indeed, the problem is ultimately not so much one of apportioning the constant costs over the traffic as it is of determining for each class of traffic that schedule of rates which, considering its ability to pay, will provide the greatest contribution toward the constant cost, provision being taken, however, to avoid the various forms of discrimination, to observe declarations of public policy, and to insure that a fair return to the carrier as a whole is not exceeded.

The problem of determining that schedule of rates which will provide the maximum contribution is particularly applicable in the instant proceeding to the less-carload class rate schedules as the less-carload revenues in 1939 did not cover the sum of the less-carload out-of-pocket costs plus the estimated constant expenses solely related to this service.[94]

The determination of that schedule of rates which will provide the maximum contribution toward the constant cost may be illustrated by the demand schedule shown in chart 22.[95] The line DD represents the assumed volume of traffic that would move at any given rate. Assume that the rate OY is charged. The volume of traffic moved will be represented by OX (tons). The gross revenue will be represented by the rectangle OYPX. Let CC equal the out-of-pocket

[94] This picture will be altered in 1942 both as a result of the increased revenues from the temporary rate increases allowed in *Ex Parte 148* and the reduced costs resulting from heavier loadings per car.

[95] The determination of the demand schedule rests upon an analysis of the various economic factors, i. e., value of service, value of the commodity, competition, etc. D. Philip Locklin in his Economics of Transportation (1938) has concisely summed up the significance of these factors as follows:

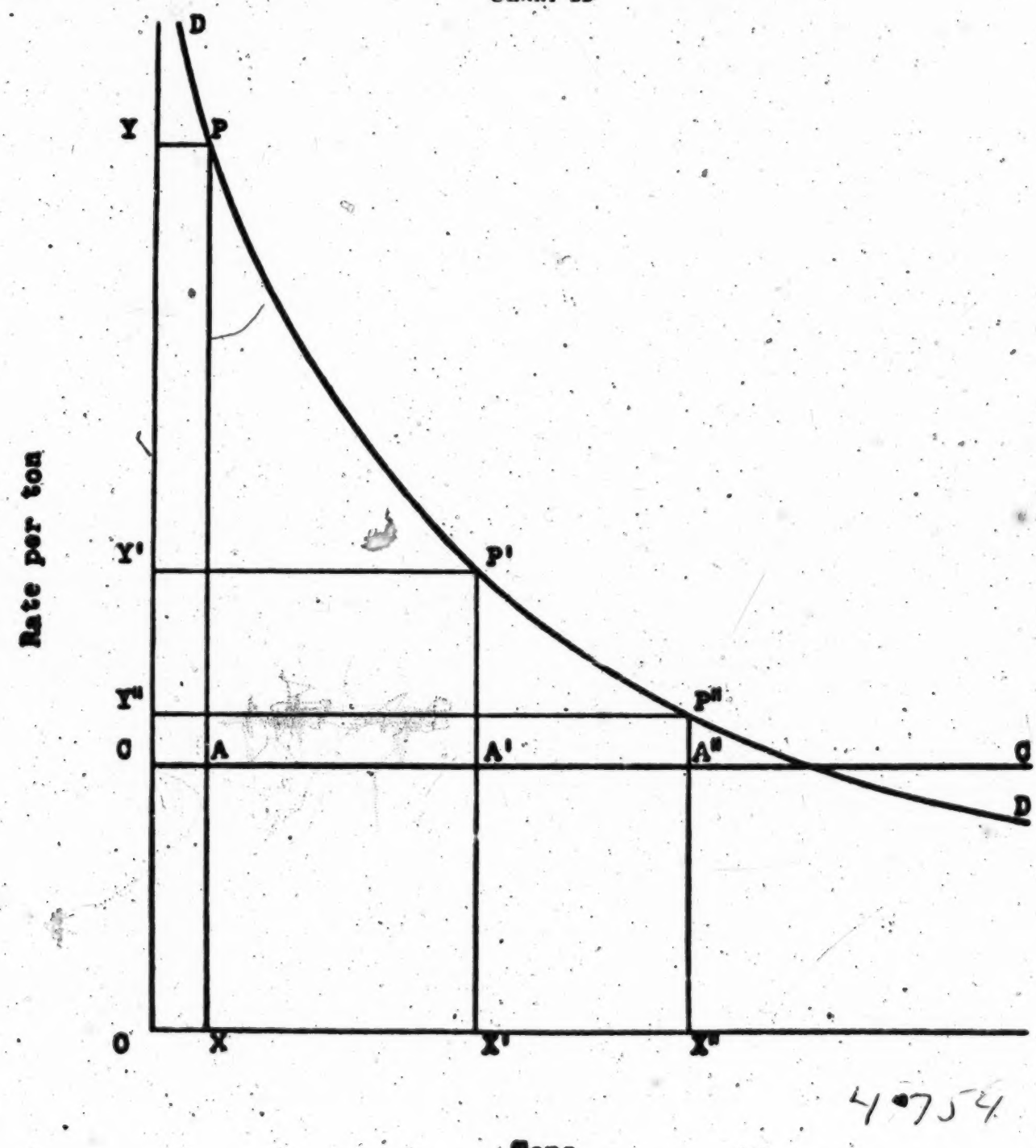
"The value of the service sets the upper limit, beyond which the traffic will not move. Prime or variable costs, on the other hand, fix the lower limit, below which the rate must not fall. But where, between the upper and lower limits, will the rate be fixed? The answer is summed up in the phrase, 'charging what the traffic will bear.' This is a much-abused phrase. It is often falsely interpreted to mean exacting the highest possible charge that can be extorted from shippers. The policy is more accurately, but more cumbersomely expressed as 'not charging what the traffic will not bear.' The practice is one of granting concessions to traffic that will not move at normal rates, although it may, if not controlled in the public interest, lead to higher rates than are necessary on traffic that will stand high rates. To be more precise, charging what the traffic will bear means that the rate on each commodity which, from the volume of traffic it produces, will result in the largest total net revenue [illegible] charging what the traffic will bear means that more traffic than would be charged if the [illegible] will move" (p. 162). "If the distinction between constant and [illegible] has been fully grasped it will be apparent that preferential rates relieve carriers rather than increase the burden on other traffic if two conditions are fulfilled. These are that the rate must more than cover the direct costs, and that the traffic will [illegible] rates. When those conditions are fulfilled preferential rates are of benefit to all concerned" (p. 161).

[fol. 4753]

4753

cost of handling each ton. As the variable expenses are constant when stated in terms of traffic units, the cost line CC can be treated as reasonably constant for any given weight load and for any given period. The contribution which the traffic will make at the rate OY is therefore represented by the difference between the out-of-pocket cost (rectangle OCAX) and the gross revenue (OYPX) or CYPA. If the rate is reduced to OY'' and the traffic is increased to OX'' the gross revenue will be represented by the rectangle OY''P''X''. The contribution which the traffic now makes above its out-of-pocket costs is represented by the difference between OY''P''X'' and OCA''X'', or, in other words, the rectangle CY''P''A''. With proper safeguards to protect the public interest and prevent extortion the problem becomes that of determining that level of the rate which will provide the greatest contribution toward the constant costs. It will lie between OY and OY''. Let us assume that OY' represents such a rate. The volume of traffic moving will then become represented by OX'. The gross revenue is represented by the area OY'P'X'. The contribution toward the constant cost is represented by the area CY'P'A'.

CHART 22



3558
[Fol. 4754]

4754

APPENDIX E

EXPLANATION OF FACTORS USED IN THE FORMULA

Weighting factors used in computing switching costs.

In securing the separation of the switching expenses between the various classes of switching on an equated car handled basis, the following weighting was applied to the number of cars handled in each of the classes of switching:

Carrier terminal switching and connection terminal switching between road train and industry and team tracks, including an allowance for intermediate switching [1]	1.00
Carrier terminal switching and connection terminal switching, between road train and freight-house tracks	.80
Interchange switching, road train to road train, including allowance for intermediate switching [1]	.45
Intertrain and intratrain switching (at intermediate terminals)	.25

[1] Allowance for intermediate switching based on the assumption that, exclusive of the work done by switching and terminal companies, not over 5.0 percent of the cars handled received an intermediate switching. Switching and terminal companies are excluded from study.

The above weighting applies to the switching movement of a car in the loaded direction only. If one assumes that the ratio of the empty cars switched to loaded cars switched for each of the four classes of switching are 1.00, 0.80, 0.65, and 0.63, respectively, the relative weighting for the total switching in each class for the loaded plus the empty movement, becomes as follows: 1.00, 0.72, 0.37, and 0.21. The weight thus given for an interchange switching of 0.37 reflects the cost for the switching in both the loaded and empty direction by a single carrier. This figure should be doubled to reflect the relative work done by both the carriers party to an interchange.

The above switching factors are based upon switching data for a large number of cities introduced in cases before the Commission, including the following:

Switching at Kansas City, Mo., and related points (96 I. C. C. 538).
Switching at St. Louis, Mo., and East St. Louis, Ill., also between St. Louis, Mo., and Suburban Stations in Missouri (120 I. C. C. 216).
Switching at Little Rock and North Little Rock, Ark. (140 I. C. C. 583).
Des Moines Union Railway Switching (231 I. C. C. 631).
Naval Stores from Mississippi to Gulf Ports (235 I. C. C. 723).
Packing House Products from Denver and Pueblo to Arizona (238 I. C. C. 569).
Petroleum and Petroleum Products from California to Arizona (241 I. C. C. 21).
I. C. C. Docket No. 26712, Rail-Barge Joint Rates.
I. C. C., F. S. A. 18444, Sugar from California to North Atlantic Ports.

Car-day factors.

The active car-days in running service were computed by multiplying the system train-hours, including train-switching-hours, by the average cars per train and dividing the product by 24. The car-days in switching service were computed by multiplying the number of loaded and empty cars handled by the following car-day factors:

	Days
Carrier terminal and connection terminal switching, industry, team tracks, and freight houses	0.50
Interchange switching per carrier	.33
Intertrain and intratrain switching	.33
Detention for loading or unloading (but not both) at industry and team tracks	1.75
Detention for loading or unloading at freight houses	.50

Car-days for "other than mileage" cars in running service were obtained by multiplying the total days in running service by the ratio of the car-miles for "other than mileage" cars to the total car-miles. The car-days for "other than mileage" cars in switching service were obtained by—

(a) Multiplying the sum of the car-days for interchange switching and intertrain and intratrain switching by the ratio of the car-miles for "other than mileage" cars to the total car-miles, and

(b) Multiplying the remaining car-days in switching service, excluding freight-house cars, by the ratio of the loaded cars handled of "other than mileage" cars to the total loaded cars handled.

Switching car-days occasioned by freight-house switching were assigned to "other than mileage" cars.

The source of the car-day factors is based upon an analysis of the cases mentioned above in connection with switching factors.

Separation of car-miles, running and switching.

The car-miles in running service were determined from the annual report, schedule 531, items 40, 41, and 48. Car-miles in switching service were obtained by multiplying the number of loaded and empty cars handled in each class of switching by the following mileages:

	Miles
Carrier terminal and connection terminal switching, industry and team tracks	4.0
Carrier terminal and connection terminal switching, freight houses	3.5
Interchange switching per carrier	2.75
Intertrain and intratrain switching	1.00

The mileages were based on a study by the Engineering Section of the Bureau of Valuation of the terminal lay-outs of a number of railroads. A weight of 1.0 is given to a car-mile in running service and a weight of 2.0 to a car-mile in switching service. This weighting is based on a study by the Engineering Section of the Commission's Bureau of Valuation.

Count of cars.

The switching factors, car-day factors, and mileage factors set forth above are applied to the count of the loaded cars plus the empty cars handled in each class of switching. The count of cars was obtained as follows:

Item	Source
1. Carrier and connection terminal switching, industry and team tracks, loads.	From A. R. Schedule 541, class 850, sum of columns (d) and (f) plus twice column (b).
2. Carrier and connection terminal switching, industry and team tracks, empties.	Number of loads handled multiplied by the ratio of the total empties spotted and switched out to the total loads spotted and switched out. For the purpose of carload traffic, the ratio used was 1.0.
3. Carrier terminal switching, nonrevenue traffic, loads.	Developed by dividing the total tons of nonrevenue freight carried by the average net load of company material to obtain the total number of loaded cars handled, nonrevenue freight. This latter figure was multiplied by 2 assuming that these nonrevenue loads were principally local to 1 line.
4. Carrier terminal switching, nonrevenue traffic, empties.	Number of loads, nonrevenue, multiplied by the ratio of 1.0.
5. Carrier and connection terminal switching, freight-house tracks, loads.	(a) Total tons of less-carload traffic handled, from A.-R. Schedule 541, class 710, sum of columns (c) plus (g) plus twice column (e). (b) Average load, tons per loaded car, from S. Res. 146, 76th Cong., 1st sess., vol 1, statement 6, column (14). (c) Number of loaded cars, line (a) divided by line (b). (d) Number of loaded cars originated or terminated, no transfers, tons transferred divided by average load, line (b). (e) Total cars, line (c) plus line (d).
6. Carrier and connection terminal switching, freight-house tracks, empties.	Number of loads handled multiplied by the ratio of the total empties spotted and switched out to the total loads spotted and switched out. For the purpose of this study the ratio used was 0.80.
7. Interchange switching loads	Computed as follows: (a) Number of cars, carload traffic, from A. R. Schedule 541, class 850, sum of columns (d) plus (f) plus twice column (h). Number of cars less-carload traffic: (b) Number of tons received from and delivered to connections, from A. R. Schedule 541, class 710, columns (c) plus (g) plus twice column (f). (c) Percentage of tons (interline traffic) in through cars not worked at interchange, from S. Res. 146, statement 6, column (3) divided by (2). (d) Number of tons (interline) in through cars not worked at interchange points, line (b) multiplied by line (c). (e) Average tons for through car, interline, from S. Res. 146, statement 6, column (13). (f) Number of cars not worked at interchange, line (d) divided by line (e). (g) Total cars, carload and less-carload, line (a) plus line (f).
8. Interchange switching empties.	Number of empties computed by multiplying the number of loads by the system ratio of empty-car-miles to loaded-car-miles.

[fol. 4755]
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4755

Item	Source
9. Intertrain and intratrain switching loads.	Computed by dividing the total car-miles by 150. Based on factor of 150 car-miles per handling. This factor was developed from studies introduced before the Commission including *Packing House Products from Denver and Pueblo to Arizona* (238 I. C. C. 500); *Petroleum and Petroleum Products from California to Arizona* (241 I. C. C. 21); and *Sugar from California to North Atlantic Ports*, F. S. A. 18444. These studies show the distance between intertrain and intratrain handlings to range from approximately 100 to 160 miles, and the average car-miles for intertrain and intratrain switching to range from 125 to 160 miles.
10. Intertrain and intratrain switching, empties.	The number of empties computed by multiplying the number of loads by the system ratio of empty-car-miles to loaded-car-miles.

The ratio of empty cars spotted and pulled to loaded cars spotted and pulled was based upon fragmentary evidence appearing in the cases above cited, which indicated that such ratio was slightly less than 1.0. However, the figure of 1.0 is used for purposes herein in conjunction with the use of a factor of 0.80 for freight-house switching. Any change in these ratios does not affect the carriers' aggregate costs, although it does affect, in some more or less negligible degree, the distribution of the expenses between line-haul and terminal and between carload and less-carload traffic. (See ch. V for a discussion of the influence of a change in these factors.)

DEFINITIONS OF THE SWITCHING TERMS USED IN THE STUDY[1]

1. Carrier terminal switching is a primary class of transportation switching service which includes all the elements of switching performed at origin and destination terminals by the initial and final line-haul carriers.

2. Connection terminal switching is a primary class of transportation switching service which includes all the elements of switching performed at origin and destination terminals by carriers, which as to the particular traffic (1) do not provide line-haul service, and (2) do not provide intermediate switching service.

3. Interchange switching is a primary class of transportation switching service which includes all the elements of switching performed in taking cars from the road train of one line-haul carrier and placing them in the road train of another line-haul carrier in the same terminal district except that it excludes intermediate switching, if any.[2]

4. Intermediate switching is a primary class of transportation switching service which includes all the elements of switching performed by a carrier which neither originates nor terminates the shipment nor performs a line haul on that shipment, the extent of the carrier's participation in the movement being only that of a connection between two other carriers.

5. Interterminal switching is a primary class of transportation switching service performed in handling a car from a track served by a carrier to a track served by another carrier when both tracks are within the switching limits of the same station or industrial switching district.

6. Intertrain switching is a primary class of transportation switching service which includes all the elements of switching performed in taking a car out of a train and placing it in another train of the same carrier at the same station or terminal.

7. Intraterminal switching is a primary class of transportation switching service performed in handling a car from a track served by a carrier to another track served by the same carrier when both tracks are within the switching limits of the same station or industrial switching district.

8. Intratrain switching is a primary class of transportation switching service which includes all the elements of switching performed in taking a car out of a train and replacing it either in the same or another position in that train.

[1] From *Sioux City Terminal Railway Switching* (241 I. C. C. 83, 90).

[2] For the purpose of this study, a separate count is given to the cars handled by each carrier participating in the interchange switching service.

Portion of the operating expenses, rents, and taxes treated as out-of-pocket in separating the out-of-pocket from the constant expenses[3]

MAINTENANCE OF WAY AND STRUCTURES

Account No.	Expense groups or items	Out-of-pocket portion (percent)	Source
201	Superintendence	20	(4)
202-22	Track expense:		
	Yard switching tracks	(5)	.....
	Way switching tracks	(5)	.....
	Running tracks	(5)	.....
227-28	Station and office buildings:		
	(a) Station buildings	20	(6)
	(b) Grain elevators	5	(6)
	(c) General office buildings	10	(6)
229-30	Roadway buildings	0	(6)
231-32	Water stations	10	(6)
233-34	Fuel stations	15	(6)
235-36	Shops and enginehouses	10	(6)
237-38	Grain elevators	5	(6)
239-40	Storage warehouses	5	(6)
241-42	Wharves and docks	10	(6)
243-44	Coal and ore wharves	10	(6)
247-48	Telegraph and telephone lines	0	(6)
249-50	Signals and interlockers	35	(6)
253-54	Power plants	0	(6)
257-58	Power transmission systems	0	(6)
265-66	Miscellaneous structures	0	(6)
269-73	Roadway machines, small tools and supplies, removing snow, ice, and sand, public improvements—maintenance	20	(6)
274	Injuries to persons	50	(6)
275	Insurance	50	(6)
276	Stationery and printing	10	(6)
277	Other expenses	0	(6)
278	Maintaining joint tracks, yards, etc., debit	(7)	.....
279	Maintaining joint tracks, yards, etc., credit	(7)	.....
281	Right-of-way expense	0	(8)

[3] For treatment of return on rate-making value see ch. XIII.

[4] See report of American Railway Engineering Association committee, A. R. E. A. Manual, 1929, p. 1406.

[5] Compute the aggregate out-of-pocket expenses for yard switching tracks, way switching tracks, and running tracks, respectively, by taking the following percentages of each individual account:

Account No.	Expense groups or items	Out-of-pocket portion (percent)			Source
		Yard switching tracks	Way switching tracks	Running tracks	
202	Roadway maintenance	10	10	10	(9)
204	Underground power tubes	0	0	0	(9)
206	Tunnels and subways	10	10	10	(9)
208	Bridges, trestles, and culverts	10	10	10	(9)
210	Elevated structures	10	10	10	(9)
212	Ties	55	70	80	(9)
214	Rails	95	100	100	(9)
216	Other track materials	90	100	100	(9)
218	Ballast	80	80	80	(9)
220	Track laying and surfacing	93	93	93	(9)
221	Fences, snowsheds, and signs	0	0	0	(9)

[6] Based on study by Engineering Section, Commission's Bureau of Valuation.

[7] See report of American Railway Engineering Association committee, A. R. E. A. manual, 1929, p. 1406.

[8] Based on study by Engineering Section, Commission's Bureau of Valuation.

[9] Percentage based on Cost Section's estimate.

[10] Apply the percentage developed for the aggregate of accounts 202-273, inclusive.

Portion of the operating expenses, rents, and taxes treated as out-of-pocket in separating the out-of-pocket from the constant expenses—Continued.

MAINTENANCE OF EQUIPMENT AND EQUIPMENT RENTALS

Account No.	Item	Out-of-pocket portion (percent)	Source
301	Superintendence	10	(1)
302-03	Shop machinery	40	(1)
304-05	Power plant machinery	5	(1)
308	Steam locomotives, repairs	100	(2)
311	Other locomotives, repairs	100	(2)
314	Freight-train cars, repairs	100	(2)
323	Floating equipment, repairs	10	(1)
326	Work equipment, repairs	75	(1)
328	Miscellaneous equipment, repairs	0	(1)
329-30	Equipment retirements:		
	(a) Steam locomotives	100	(2)
	(b) Other locomotives	100	(2)
	(c) Freight-train cars	100	(2)
	(d) Work equipment	25	(1)
	(e) Floating equipment	0	(1)
331	Equipment depreciation		
	(a) Steam locomotives	100	(2)
	(b) Other locomotives	100	(2)
	(c) Freight-train cars	100	(2)
	(d) Work equipment	25	(1)
	(e) Floating equipment	0	(1)
329-31	Equipment retirements and depreciation, miscellaneous equipment	0	(1)
332	Injuries to persons	80	(1)
333	Insurance	50	(1)
334	Stationery and printing	10	(1)
335	Other expenses	0	(1)
336	Maintenance of joint equipment, debit	100	(2)
337	Maintenance of joint equipment, credit	100	(2)
313-36	Shops and enginehouses	10	(1)
253-54	Power plants	0	(1)
257-58	Power transmission systems	0	(1)
533, 536	Hire of freight cars	100	(2)
534, 537	Locomotive rent, net	100	(2)
538	Rent from floating equipment	50	(1)
539	Rent for floating equipment	50	(1)
537	Rent from work equipment	10	(1)
540	Rent for work equipment	10	(1)

[1] Based on study by Engineering Section, Commission's Bureau of Valuation.
[2] Percentage based on Cost Section's estimate.
[3] See report of American Railway Engineering Association committee, A. R. E. A. Manual, 1928, p. 1008.

[4] It is assumed that the investment in locomotive equipment and freight-train cars, and the rental of such equipment will adjust itself, with some lag, to the volume of traffic by respondent. The reasons follow:

Maintenance of equipment expenditures fluctuate widely. In times of relative prosperity the needs of the traffic require that the equipment awaiting repairs be reduced to a minimum. As traffic drops off the need for equipment correspondingly declines and under the pressure of declining revenues the cars and locomotives needing repairs may be stored rather than sent to the shops. This procedure may continue temporarily until the supply of serviceable equipment is reduced to the current needs of traffic. A new but lower level of shop expenditures is then reached which is in tune with the then-existing flow of traffic. When traffic is declining the carrier may be temporarily living on its "fat" i. e., on the excess of serviceable equipment above current needs. When traffic picks up and unserviceable equipment is taken out of storage for repairs the process is reversed with a temporary added financial burden to the carrier. A like situation exists as to the ownership of equipment. As traffic declines purchases fall off and as traffic picks up purchases increase. Although this adjustment of ownership to traffic needs is very irregular and subject to much lag, particularly when traffic is declining, and although the long-time trend is influenced by the continuous drive toward more effective utilization of equipment nevertheless there exists the basic tendency for management to adjust its ownership of equipment to its traffic needs (allowance for reserves included).

Portion of the operating expenses, rents, and taxes treated as out-of-pocket in separating the out-of-pocket from the constant expenses—Continued.

TRANSPORTATION EXPENSES

Account No.	Item	Out-of-pocket portion (percent)	Source
371	Superintendence	80	(1)
372	Dispatching trains	80	(1)
373	Station employees:		
	(a). Platform labor	90	(1)
	(b) Other employees	33	(1)
374	Weighing, inspection, and demurrage bureaus	0	(1)
375	Coal and ore wharves	20	(1)
376	Station supplies and expenses	(10)	.....
377-387, 389 391	Yard expenses, excluding enginehouse expenses	100	(1)
388	Enginehouse expenses—yard	75	(1)
392-399, 401-402	Train expenses, excluding enginehouse expenses	100	(1)
400	Enginehouse expenses—train	75	(1)
404	Signals and interlockers	33	(1)
405	Crossing protection	50	(1)
406	Drawbridge operation	0	(1)
407	Telegraph and telephone operation	50	(1)
408	Operating floating equipment	50	(1)
410	Stationery and printing	50	(1)
411	Other expenses	50	(1)
412	Operating joint tracks and facilities, debit	50	(1)
413	Operating joint tracks and facilities, credit	50	(1)
414	Insurance	50	(1)
415-420	Loss and damage, etc., clearing wrecks	100	(1)

TRAFFIC, GENERAL, MISCELLANEOUS OVERHEADS AND TAXES

Account No.	Expense groups or other items	Out-of-pocket portion (percent)	Source
441-446	Miscellaneous operations	20	(1)
351-359	Traffic	20	(1)
451-462	General	50	(1)
506 & 541	Joint facility rents—net	0	(1)
142	Rent of buildings and other property—credit	0	(1)
532	Pay-roll taxes	(11)	.....
532	All other taxes—freight portion	(12)	.....

[1] Percentage based on Cost Section estimate.
[2] Based on analysis of effect of traffic changes on expenses. See I. C. C. Docket No. 25500, exhibit 12, appendix F.
[3] Based on (a) a finding that station expenses, account 373, are approximately 80 percent variable with changes in traffic volume (see Table 39, page 83), and (b) an estimate that the platform labor portion of the expenses are 90 percent variable. With approximately one-third of the charges to account 373 constituting "platform labor," it follows that the portion of the expenses for "other employees" which are variable with traffic is about one-third.
[4] Apply the percentage developed for the aggregate of account 373 ((a) plus (b)).
[5] Computed by multiplying the freight portion of the pay-roll taxes by the ratio of the out-of-pocket expenses, excluding equipment depreciation, to the total operating expenses, excluding equipment depreciation.
[6] Includes Federal income taxes and freight portion of Federal telephone and telegraph, gas and oil, and electrical energy taxes.

[fol. 4757]

4757

APPENDIX F

ECONOMICS OF RAILWAY OPERATION

A FORMULA OR METHOD OF CALCULATING THE COST OF MOVING FREIGHT TRAFFIC

The method is designated to include Maintenance of Way, Maintenance of Equipment, Transportation, Traffic, General Expenses and Fixed Charges that enter into and should be applied in determining the cost of the movement of freight between any two points on the railroad or through or over any special facility operated by the Railroad Company incident to performing its function of manufacturing transportation.[1]

The accuracy of the results that may be desired is only limited by the degree of refinement that may be practical in developing the various tables to be used in the application of the formula in solving the many problems of operating costs that are constantly coming before railroad managers. As an illustration, it may be desired to know the cost of handling live stock from a midwestern point to a market center or to tidewater, or the cost of handling grain or other individual commodity or miscellaneous freight between certain points on the line. The formula will also be useful in comparing the cost of moving a given volume of traffic via two different routes. Certain important interests may offer a large additional tonnage for transportation between two points and by the application of this formula it may quickly be determined whether or not this additional business would be profitable.

In presenting the tables the spread, or period of time, the figures cover is not indicated; this must necessarily be left to the individual carrier, as conditions will vary greatly on different railroads. In the case of wages, fuel and other supplies, the latest prices would ordinarily be best. The same thought may apply to most all items in the Maintenance of Way and Maintenance of Equipment Accounts, except items of repair, where a greater spread should be used in order to take into account seasonal variation in business and expense. Where wages are spread over a long period involving a change in rate of pay, the same should be equated to present-day basis.

Direct and indirect expense items are developed in certain tables: In the Maintenance of Way and Maintenance of Equipment Accounts the indirect expense is based on the ratio of dollars expended per dollar of direct expense and in the case of transportation accounts the indirect expense is based on the ratio of dollars expended per train mile. In other

[1] Adopted, Vol. 25, 1924, pp. 714, 1316.

4758

words, the indirect expense is based on the ratio of expense not affected by use or volume of business handled to expense which is affected by use or the volume of business handled. This method is adapted to problems not involving increases or decreases in traffic; however, should the problem involve a change in the volume of business, it will be necessary to equate the indirect expense units inversely to such variation in the traffic to be handled.

The same consideration should be made in applying the unit costs for fixed charges, which, within certain limits, will increase as the volume of business decreases and decrease as the volume of business increases.

The figures set up in the various tables are of value only in illustrating a plan by which this method or formula may be worked out. Tables of similar units can be set up in forms very concise and convenient for ready reference in applying this method to the problems to be met with on the several operating divisions of a railroad.

North and South Railroad

A FORMULA FOR ESTIMATING THE COST OF MOVING FREIGHT TRAFFIC—DERIVATION OF COST DATA

Table 1

Engine and Train Crew Wages in Through and Local Freight Service.

This table is compiled from data furnished by the Bureau of Rates of Pay. The figures should be based on the current rates of pay in effect.

Straight pay per eight hour day (or per 100 miles), and hourly overtime rate of entire crew (engineman, fireman, conductor, flagman, and one, two or three brakemen, as conditions may require), are given for each class of power and kind of service.

Table 2

Rates of Pay for Enginemen, Firemen, Trainmen and Yardmen.

This table is prepared from the same information used in compiling Table 1, and is intended to supply the necessary detail for modifying total crew pay where special operating conditions exist, such as the use of two road engines per train, or other features not covered by the standard crew combinations given in Table 1.

Table 3
Column 1

Direct Expense—Fuel Hauling and Handling per ton

This item covers Direct Freight Transportation and Maintenance of Equipment Expense per ton for hauling Company coal from mine to fuel station, plus cost per ton for fuel station operation.

In computing the cost of haul from the originating point to any one division, the first step is to obtain the average direct expense per net ton mile of [illegible], in each division participating in the movement.

The average cost per ton of total haul of fuel, to any division, is then obtained from the Fuel Bureau, or other source, and each participating division is assigned its portion of this mileage.

4 7 9

The average net ton mile cost (direct expense) on each division affected is multiplied by its assigned portion of the entire haul, and by totaling these products the cost of haul per ton is determined for the entire distance.

The cost per ton for fuel station operation is obtained for each division by dividing Account 394-c by the total tons of passenger and freight fuel disbursed.

Table 3 Column 2

Direct Expense—Water per 1,000 Gallons.

This cost is obtained by converting total passenger, freight and yard fuel disbursed on each division, into equivalent gallons of water, on the basis of one gallon of water for each pound of coal, and dividing Accounts 385 and 397—the divisional water expense—by the equivalent gallons so obtained.

Table 3 Column 3

Direct Expense—Station Agents, Clerks and Supplies per Train Mile.

This item includes the total freight portions of Accounts 373 and 376 less the labor Sub-accounts 373-d and 373-e. The figures in Column 3 are obtained by dividing these net amounts by the freight train mileage.

Table 3 Column 4

Direct Maintenance of Way Expenses (Roadway and Track) per 1,000 Gross Ton Miles.

This expense includes all Maintenance of Way and Structure items considered as being affected by use or volume of traffic.

The accounts, listed in detail, as developed by Sub Committee No. 6 of Committee No. XXI (See Appendix F, Vol. 24, Proceedings, 1923, pages 1084 to 1094, inclusive), are shown in the following Table A, the freight portion only being used. Separation between Passenger and Freight expenses is made according to the Interstate Commerce Commission formula "Rules governing the separation of Operating Expenses between freight service and passenger service on large steam railways, effective January first, 1920." This method of separating passenger and freight expenses may be revised to meet the needs of the individual carrier.

4700

TABLE A

Maintenance of Way and Structure Accounts	1 Acct. No.	2 Per Cent of Total M.W.&S. Expense	3 Per Cent Affected by Use	4 Per Cent Not Affected by Use	5 (Direct Expense) Per Cent Total M. W. & S. Expense Affected by Use	6 (Indirect Expense) Per Cent Total M. W. & S. Expense Not Affected by Use
Ties	212	15 41	30	70	4-62	10.79
Rails	214	2 99	100	.....	2.99	.....
Other Track Material	216	4 52	100	.....	4.52	.....
Ballast	218	1 88	80	20	1 50	.38
Superintendence	201	5 69	20	80	1 14	4.55
Roadway Maintenance	202	10 96	.....	100	.....	10.96
Tracklaying and Surfacing	220	25 91	55	45	14 25	11.66
Roadway—Fences	221	.87	.....	100	.....	.87
Snow, Sand Fences, Etc	223	.11	.....	100	.....	.11
Crossings and Signs	225	1 30	.....	100	.....	1.30
Roadway Machines	269	.45	.....	100	.....	.45
Small Tools and Supplies	271	1.13	40	60	.45	.68
Removing Snow, Ice, Etc	272	1.76	.....	100	.....	1.76
Bridges, Terminals and Culverts	208	7.38	10	90	.74	6 64
Tunnels and Subways	206	.32	10	90	03	.29
Elevated Structures	210	.01	.....	100	.....	.01
Station and Office Buildings	227	3.93	.....	100	.....	3.93
Roadway Buildings	229	.53	.....	100	.....	.53
Water Stations	231	1.31	10	90	13	1 18
Fuel Stations	233	.53	15	85	.08	.45
Shops, Engine Houses	235	2 45	10	90	.25	2.20
Grain Elevators	237	.06	.....	100	.....	.06
Storage Warehouses	239	.01	.....	100	.....	.01
Wharves and Docks	241	.61	10	90	.06	.55
Coal and Ore Wharves	243	.55	10	90	.06	.49
Gas Power Plants	248	.01	.....	100	.....	.01
Power Plant Buildings	253	.07	.....	100	.....	.07
Power Substation Buildings	255	.01	.....	100	.....	.01
Miscellaneous Structures	265	.09	.....	100	.....	.09
Underground Power Tube	201	#	.....	100	.....	.....
Power Plant, Dams and Pipe Lines	251	#	.....	100	.....	.....
Power Transportation System	257	.03	.....	100	.....	.03
Power Distributing System	259	.25	.....	100	.....	.25
Power Line Poles and Fixtures	261	.03	.....	100	.....	.03
Underground Conduits	263	.....	.....	100	.....	.....
Telegraph and Telephone Lines	247	1.11	.....	100	.....	1.11
Signals and Interlockers	249	2.67	30	70	.80	1.87
Shop Machinery	302	2.78	40	60	1 10	1.68
Power Plant Machinery	304	.44	5	95	.02	.42
Power Substation Apparatus	306	.03	.....	100	.....	.03
Paving	267	.05	.....	100	.....	.05
Assessments, Public Improvements	273	.07	.....	100	.....	.07
Injuries to Persons	274	.73	50	50	.37	.37
Insurance	275	.61	.....	100	.....	.61
Stationery and Printing	276	.20	10	90	.02	.18
Other Expenses	277	.17	.....	100	.....	.17
Totals		100 00			33 13	66 87

#Less than .01 per cent

4761

The unit values given in Table 3, Column 4, are obtained by dividing the total expense (freight) for the above items, by the gross ton mileage made on each division.

It may be found expedient to handle certain special facilities separately, as Coal and Ore Wharves Account 243 and Grain Elevators Account 237, in which event they may be taken out of Table A, and treated as indicated and shown in Table 3-C.

Table 3 Column 5

Indirect Transportation Expense per Train Mile.

The following items of Freight Transportation Expenses are covered by this heading:

371—Superintendence.
372—Dispatching Trains.
374—Weighing, Inspection and Demurrage Bureaus.
377—Yard Masters and Yard Clerks.
379—Yard Switch and Signal Tenders.
389—Yard Supplies and Expenses.
390—Operation Joint Yards and Terminals.—Dr.
391—Operation Joint Yards and Terminals.—Cr.
404—Signals and Interlocking Operation.
405—Crossing Protection.
406—Drawbridge Operation.
407—Telegraph and Telephone Operation.
410—Stationery and Printing.
411—Other Expenses.
412—Operation Joint Tracks and Facilities—Dr.
413—Operation Joint Tracks and Facilities.—Cr.
414—Insurance.
415—Clearing Wrecks.
416—Damage to Property.
417—Damage to Livestock on Right-of-Way.
418—Loss and Damage—Freight.
420—Injuries to Persons.

The unit values given in Column 5 are obtained by dividing the total expenses (freight) for the above items, by the freight train mileage made on each division.

Table 3 Column 6

Indirect Maintenance of Equipment Expense per Dollar of Direct Maintenance of Equipment Expense.

The total direct expense and total indirect expense on each division is obtained by applying the percentages shown in the following Table B, Columns 5 and 6, using freight portion only. The unit values in Table 3, Column 6, are obtained by dividing the indirect expense by the corresponding direct expense.

The percentages in Table B have been determined by using the best information developed for the test period (1915-1916-1917) collaborating with experienced mechanical engineers.

It will be noted that 56.89 per cent of the maintenance of equipment expense is direct or may vary with the business handled and 43.11 per cent is indirect or may not be affected with the business handled.

3566 [fol. 4762]

4762

TABLE B

Maintenance of Equipment Accounts		1 Account No.	2 Per Cent of Total M. of E. Expense	3 Per Cent Affected by Use	4 Per Cent Not Affected by Use	5 Direct Expense: Per Cent of Total M. of E. Expense Affected by Use	6 Indirect Expense: Per Cent of Total M. of E. Expense Not Affected by Use
Superintendence		301	3 71	10	90	33	3 01
Shop Machinery		302	1 97	21	79	79	1 18
Shop Machinery Depreciation		303					
Power Plant Machinery		304	22	5	95	01	21
Power Plant Machinery Depreciation		305					
Power Substation Apparatus		306	01		100		01
Power Substation Apparatus Depreciation		307					
Steam Locomotive Repairs		308	40 85	86	14	35 13	5 72
Steam Locomotive Depreciation		309	4 72		100		4 72
Steam Locomotive Retirements		310	24		100		24
Other Locomotive Repairs		311	05	75	25	04	01
Other Locomotive Depreciation		312	03		100		03
Other Locomotive Retirements		313	03		100		03
Freight Train Cars—Repairs		314	25 49	65	35	16 57	8 92
Freight Train Cars—Depreciation		315	8 82		100		8 82
Freight Train Cars—Retirements		316	5 07		100		5 07
Passenger Train Cars—Repairs		317	3 63	76	24	2 76	87
Passenger Train Cars—Depreciation		318	79		100		79
Passenger Train Cars—Retirements		319	13		100		13
Motor Equipment of Cars—Repairs		320		75	25		
Motor Equipment of Cars—Depreciation		321			100		
Motor Equipment of Cars—Retirements		322			100		
Floating Equipment—Repairs		323	1 42	10	90	14	1 28
Floating Equipment—Depreciation		324	18		100		18
Floating Equipment—Retirements		325	*		100		*
Work Equipment—Repairs		326	83	86	14	71	12
Work Equipment—Depreciation		327	29		100		29
Work Equipment—Retirements		328	27		100		27
Miscellaneous Equipment—Repairs		329	02	86	14	02	
Miscellaneous Equipment—Depreciation		330	*		100		*
Miscellaneous Equipment—Retirements		331	01		100		01
Injuries to Persons		332	30	50	50	15	15
Insurance		333	56		100		56
Stationery and Printing		334	24	10	90	02	22
Other Expenses		335	22		100		22
Maintenance Joint Equipment at Terminals	Dr	336	20	80	20	16	04
Maintenance Joint Equipment at Terminals	Cr	337	07	80	20	06	01
Totals			100 00			56 89	43.11

*Less than .01 per cent.

Table 3 Column 7

Indirect Maintenance of Way Expense per Dollar of Direct Maintenance of Way Expense.

In computing unit values for Table 3, Column 7 (average Indirect Maintenance of Way and Structure Expense per dollar of Direct Maintenance of Way and Structure Expense), the freight portion of items listed under Indirect Maintenance of Way and Structure Expense, Table A, are totaled for each division; the total thus obtained is divided by the total Direct Maintenance of Way and Structure Expense, Table A.

Table 3 Column 8

Indirect Expense—General and Traffic Expense per Dollar of all Other Expense.

The accounts included under this heading are as follows (Freight portion only):

GENERAL AND TRAFFIC EXPENSE

Accounts 451 to 462, inclusive—(General).
Accounts 351 to 359, inclusive—(Traffic).

ALL OTHER OPERATING EXPENSE

Maintenance of Way and Structures
Maintenance of Equipment.
Transportation—Rail Line.
Miscellaneous Operations.
Transportation for Investment—Cr.

4763

[101 4703]

The Unit Values in Column 8 are obtained by dividing the total General and Traffic Expense for each division by the correspondnig total of All Other Operating Expenses.

Table 3-A

Repairs, Lubricants and Other Supplies for Locomotives—Direct Expense per Locomotive Mile.

The following method is used to obtain repair costs for the various classes of locomotives. This is based on the assumption that the average cost of locomotive repair varies directly as its weight.

A—Number of locomotives of all classes and types	2,544
B—Total weight in pounds (including empty tenders)	701,750,000
C—Average weight per locomotive in pounds (B÷A)	276,000
D—Total locomotive mileage	28,152,000
E—Total locomotive pound-miles (millions) C×D)	7,770,000
F—Total account 308	$ 9,212,000
G—Cost per million pound-miles (F÷E)	$ 1.185

*Cost per Locomotive Mile (Inc. Tender)**

Mallet, 553,000 pound-miles per loco. mile	$0.66
Santa Fe, 417,000 pound-miles per loco. mile	0.50
Heavy Mikado 397,000 pound-miles per loco. mile	0.47
Standard Mikado, 350,000 pound-miles per loco. mile	0.42
Heavy Consol., 257,000 pound-miles per loco. mile	0.30

*This cost is obtained by multiplying "Cost per million pound-miles" (G) by the weight of locomotive and tender and dividing by 1,000,000.

Cost of Lubricants and Other Supplies for Locomotives is obtained by dividing total of Accounts 398 and 399 by passenger and freight locomotive mileage (yard excluded).

The average is found and in establishing figures for the various classes, the Heavy Consolidation engine is taken as the average, the Mallet as double the average, the Mikado and Santa Fe are graded between Heavy Consolidation and Mallets.

Table 3-B

Freight Car Repairs per Car Mile Train Supplies and Expense per 1,000 Car Miles.

To obtain the Freight Car Repairs per Car Mile the total of Account 314 is divided by the corresponding total loaded and empty car mileage including caboose.

To obtain the cost of Train Supplies per 1,000 Car Miles the total of Account 402 Freight portion is divided by the corresponding total loaded and empty car mileage including the caboose.

Table 3-C

Average Cost per Ton Handled through Special Facilities.

The items under this heading, Coal and Ore Wharves, Grain Elevators, and Floating Equipment, have their unit values given uniformly on the basis of tonnage handled through the given facility. The following accounts are included:

Item

Coal and Ore Wharves—Transp. Acct. 375 M. of W. Acct. 243.

Grain Elevators—Misc. Op. Acct. 443 M. of W. Acct. 237.

Floating Equipment—Transp. Acct. 408 M. of W. Acct. 325.

Table 3-D

Fixed Charges Per Car Mile

The items listed under this heading represent the following:

(1) Taxes (basis calendar year).
(2) Joint Facilities and Lease of Road (basis calendar year).
(3) Hire of Equipment (basis calendar year).
(4) Return on Investment (per cent on valuation).

These Expenses are distributed between passenger and freight service on the basis of the ratio of Freight Expense to total operating expenses for the calendar year, the freight portion being 80 per cent. (This per cent to be determined for each particular railroad.)

By applying the above freight percentage to items (1), (2), (3) and (4) and dividing each result by the freight car mileage the unit values are obtained.

Table 4
Direct Enginehouse Expenses per Dispatchment.

The costs given by stations in this table represent the average cost of labor and material per engine dispatched (Passenger, Freight and Yard) from the points named.

Table 5

Direct Yard Expense per Unit Car Received and Cars per Yard Engine Hour, ("Unit Cars" means a car received in the yard from line of road or from connections).

This table is compiled from data given on Individual Yard Expense statements prepared monthly for each yard. These statements are in effect a distribution of the following divisional expenses:

Acct. 377—Yard Masters and Yard Clerks.
Acct. 378—Yard Conductors and Brakemen.
Acct. 379—Yard Switch and Signal Tenders.
Acct. 380—Yard Enginemen.
Acct. 381—Yard Motormen.
Acct. 382—Fuel for Yard Locomotives.
Acct. 384—Yard Switching Power Purchased.
Acct. 385—Water for Yard Locomotives.
Acct. 386—Lubricants for Yard Locomotives
Acct. 387—Other Supplies for Yard Locomotives.
Acct. 388—Enginehouse Expenses Yard.
Acct. 389—Yard Supplies and Expenses.

In order to arrive at the Direct Expense the amounts charged to Accounts 377, 379, 389, have been deducted from the totals of the above listed accounts. The Direct Expense is then divided by the number of unit cars received in order to obtain the unit costs given in Table 5.

The number of unit cars handled per engine hour is given in the Individual Yard Expense Statement and has been included in Table 5, for the purpose of computing locomotive repair costs.

4705

Table 6

Ratio of Road Locomotive Miles to Train Haul Miles.

The purpose of this table is to provide a method of correcting certain Transportation and Maintenance of Equipment expenses to allow for light and terminal mileage.

In computing the unit value for each division, the total freight train mileage less mileage of engines run light with caboose, is applied as a divisor into the total freight train mileage plus the light and terminal locomotive mileage.

The ratios are given in percentage form and are used as multipliers for the purpose of inflating the following item:

Wages of Road Crews.
Fuel.
Water.
Engine Miles for Lubricants and Supplies.
Enginehouse Expense.
Engine Miles for Repairs to Road Locomotives.

Table 7

Helper Service—Engine Trip Basis.

This table gives helper engine mileage—helping and light—and Direct Transportation Expense per helper engine trip on all helper districts. The class of engine is also noted for convenience in computing helper repairs.

The items of expense included in the cost per trip are as follows:

Wages of Engine Crew.
Fuel.
Water.
Lubricants and Supplies.
Enginehouse Expense.

Table 8

Cost per ton LCL Freight Handled by Station Labor.

This table is based on data furnished by the Station Service Bureau or other source. The unit values are obtained by dividing the expense for platform forces at each station by the corresponding number of tons handled—first handling.

Table 9

Hire of Private Line Equipment Per Car Mile.

The cost per car mile are those in effect at the time the study is made. These figures are to be substituted for the average value of $0.0026 per car mile given under Fixed Charges when privately owned equipment is used for particular commodities.

Table 10

Cost per Ton Hauling and Handling Fuel

The calculated cost of hauling and handling fuel is explained for Table 3, Column 1.

4766

Table 11

Average Number of Crew Hours per Trip.

The average number of crew hours per trip is taken from record showing freight train performance for a suitable period of days or months.

TABLE 1

Engine and Train Crew Wages in Through and Local Freight Service —As of July 1, 1921

Class of Power—Weight on Drivers—Locomotive Series Numbers	Total per 8 Hrs. or per 100 Miles and Hourly O. T. Rate				
	Through Freight		Local and Pickup		
	5-Men	6-Men	5-Men	6-Men	7-Men
Mallet					
275,000 lb. and over	$29 31 5 80	$33 79 6 34	$31 58 5 92	$36 43 6 83	$41 31 7 78
Santa Fe					
300,000 lb. to 350,000 lb.	$28 01 5 25	$32 49 6 09	$ 30 25 5 67	$35 13 6 59	$40 01 7 50
Mikado					
200,000 lb. to 250,000 lb.	$27 32 5 12	$31 80 5 96	$29 56 5 54	$34 44 6 46	$39 32 7 37
Heavy Consolidation and Pacific					
170,000 lb. to 200,000 lb.	$27 00 5 06	$31 48 5 90	$29 24 5 48	$34 12 6 40	$39 00 7 31
Light Consolidation and Pacific Mogul and Heavy Six Wheel.					
140,000 lb. to 170,000 lb.	$26 68 5 00	$31 16 5 84	$28 92 5 42	$33 80 6 34	$38 68 7 25
Miscellaneous Light Freight, Passenger and Switching Locomotives					
100,000 lb. to 140,000 lb.	$26 28 4 93	$30 76 5 77	$28 52 5 35	$33 40 6 26	$38 28 7 18
80,000 lb. to 100,000 lb.	$26 04 4 88	$30 52 5 72	$28 28 5 30	$33 16 6 22	$38 04 7 13

TABLE 2

Rates of Pay for Enginemen, Firemen, Trainmen, Yardmen, etc.— As of July 1, 1921

ENGINEMEN AND FIREMEN

Total per Day or per 100 Miles and Hourly Overtime Rate

Class of Power	Mallet	Class S	Mikado	Consolidation and Pacific		Miscellaneous Lt. Frt. Passenger and Switching		
Weight on Drivers	275,000# and over	300,000# 350,000#	200,000 250,000#	170,000# 200,000#	140,000# 170,000#	100,000# 140,000#	80,000# 100,000#	Under 80,000#
Through Freight.*								
Enginemen	$ 8 40	$ 7 48	$ 7 20	$ 7 01	$ 6 88	$ 6 64	$ 6 56	$ 6 48
Firemen	6 15	5 77	5 36	5 20	5 04	4 88	4 72	4 64
Total	$14 55	$13 25	$12 56	$12 24	$11 92	$11 52	$11 28	$11 12
Engine Crew O. T. Rate	2 73	2 48½	2 35½	2 29½	2 23½	2 16	2 11½	2 08½
Local and Pickup*								
Enginemen	$ 8 92	$ 8 00	$ 7 72	$ 7 56	$ 7 40	$ 7 16	$ 7 08	$ 7 00
Firemen	6 55	6 17	5 76	5 60	5 44	5 28	5 12	5 04
Total	$15 47	$14 17	$13 48	$13 16	$12 84	$12 44	$12 20	$12 04
Engine Crew O. T. Rate	2 90½	2 65½	2 52½	2 46½	2 40½	2 33½	2 28½	2 25½
Yard†								
Enginemen	$ 7 72	$ 6 88	$ 6 72	$ 6 56	$ 6 56	$ 6 40	$ 6 40	$ 6 40
Firemen	6 32	5 36	5 20	5 08	5 08	4 96	4 96	4 96
Total	$14 04	$12 24	$11 92	$11 64	$11 64	$11 36	$11 36	$11 36
Engine Crew O. T. Rate	2 63½	2 29½	2 23½	2 18½	2 18½	2 13	2 13	2 13

*100 miles less, 8 hours or less, constitutes a day's work.

†8 hours constitutes a day's work.

4767

TABLE 2—Continued

FREIGHT TRAINMEN

Occupation or Crew Make-up	Through Service		Local and Pickup Service	
	Per Day or Per 100 Miles	Per Hour of Overtime	Per Day or Per 100 Miles	Per Hour of Overtime
Conductors	$5.80	$1.08½	$6.32	$1.18½
Flagmen or Brakemen	4.80	0.84	4.88	0.91½
Conductor, Flagman and 1 Brakeman	$14.76	$2.76½	$16.08	$3.01½
Conductor, Flagman and 2 Brakemen	19.24	3.60½	20.96	3.92
Conductor, Flagman and 3 Brakemen	.....	.....	25.84	4.84½

8 hours or less, 100 miles or less, constitutes a day's work. Basis 12½ miles per hour.

YARD TRAINMEN

Rate per	Conductors	Brakemen	Switch Tenders
Day	$6.32	$5.84	$4.40
Hour of Overtime	1.18½	1.09½	0.82½

TABLE 3

Unit Costs, Freight Portion, Applying on Various Divisions

Division	Direct Expense				Indirect Expense			
	1 Fuel Hauling and Handling per Ton	2 Water Per 1000 Gallons	3 Station Agents Clerks Supplies per Train Mile	4 Roadway and Track Maint. per 1000 G. T. M.	5 Transp. Expense per Train Mile	6 M. of E. Expense per Dollar Direct M. of E.	7 M. of W. Expense per Dollar Direct M. of W.	8 General and Traffic Expense per Dollar of all Other Operating Expense
First	$1.55	$0.0915	$0.219	$0.605	$0.773	$0.281	$0.195	$0.0535
Second	1.06	0.0973	0.564	0.532	1.377	0.275	0.551	0.0396
Third	1.72	0.0972	0.433	1.046	0.384	0.323	0.355	0.0936
Fourth	0.69	0.0521	0.584	0.253	0.504	0.312	0.274	0.0731
Fifth	0.42	0.0267	0.391	0.420	0.432	0.256	0.223	0.0565

TABLE 3-A

Repairs, Lubricants and Other Supplies for Locomotives—Cost per Locomotive Mile

	Mallet	Santa Fe	Heavy Mikado	Standard Mikado	Heavy Consolidation
Repairs (Running and Classified)	$0.66	$0.50	$0.47	$0.42	$0.30
Lubricants and other Supplies	0.0354	0.030	0.027	0.025	0.0177

TABLE 3-B

Freight Car Repairs and Freight Train Supplies

Freight Car Repairs	$0.0205 per Car Mile
Freight Train Supplies and Expense	$3.24 per 1,000 Car Miles

3572 [Vol. 4768]

4768

Table 3-C

Average Cost per Ton Handled Through Special Facilities

Divisions	Coal and Ore Wharves				Grain Elevators		Floating Equipment	
	Handling Coal		Handling Ore					
	Oper'n	Maint.	Oper'n	Maint.	Oper'n	Maint.	Oper'n	Maint.
First	.....	.....	.....	.....	.....	.....	$0.4290	$0.4280
Second	$0.0868	$0.0140	.....	.....	$0.439	$0.0597	0.0950	0.1852
Third	.....	.....	$0.1350	$0.0428	.....	.....	.....	.....
Fourth	0.0234	0.0130	0.1281	0.0137	.....	.....	.....	.....
Fifth	0.0330	0.0140	0.1161	0.0102	.....	.....	.....	.....

Table 3-D

Fixed Charges

Taxes	$0.00732 per car mile
Joint Facilities and Lease of Road	0.00127 per car mile
*Hire of Equipment	0.00261 per car mile
Return on Investment	0.01400 per car mile
Total	$0.0[illegible]20 per car mile

(*)Where privately owned equipment is used substitute actual charge per car mile in place of average cost. See Table No. 9.

Table 4

Direct Enginehouse Expense per Dispatchment

Station	Cost	Station	Cost	Station	Cost
A	$2.11	F	$1.07	K	$7.00
B	5.32	G	7.84	L	4.06
C	1.67	H	4.11	M	2.82
D	5.69	I	2.13	N	2.63
E	4.68	J	3.49	O	4.66

Table 5

Direct Yard Expense per Unit Car Received and Cars per Engine Hour

Yard	Cost per Car	Cars per Hour	Yard	Cost per Car	Cars per Hour	Yard	Cost per Car	Cars per Hour
A	$1.06	5.0	F	$1.68	3.0	K	$1.50	5.0
B	1.92	2.0	G	1.19	5.0	L	5.00	1.0
C	0.54	12.0	H	1.00	6.0	M	0.76	8.0
D	0.72	11.0	I	0.46	12.5	N	0.44	17.0
E	0.78	7.0	J	0.54	10.0	O	1.13	4.0

Table 6

Ratio of Road Locomotive Miles to Train Haul Miles

Division	Per Cent	Division	Per Cent	Division	Per Cent
First	118.4	Third	103.8	Fifth	116.6
Second	113.9	Fourth	108.0	Sixth	119.3

4769

Table 7

Helper Service—Engine Trip Basis

Helper District	Helper Miles H. & L.	Class of Power	Direct Transportation Expense
A to B	6	Mikado	$14.70
C to D	7	Electric	20.00
E to F	24	Mallet	33.00
G to H	50	Class S	58.50
I to J	70	Consolidation	40.40

Table 8

Cost Per Ton L. C. L. Freight Handled by Station Labor

Station	Cost	Station	Cost	Station	Cost
A	$0.809	F	$0.732	K	$0.575
B	0.808	G	0.826	L	0.427
C	0.780	H	0.908	M	0.457
D	0.897	I	0.767	N	0.533
E	0.655	J	0.719	O	0.474

Table 9

Hire of Private Line Equipment—Per Car Mile

Refrigerator	Tank	Live Poultry	Stock	Heater	Coal and Coke
$0.02	$0.015	$0.015	$0.01	$0.01	$0.015

Table 10

Cost Per Ton—Hauling and Handling Fuel

Divisions	*Net Ton Mileage, Average per Month	Cost of Hauling: *Direct Freight Transp. and M. of E. Expense Average per Month	Cost of Hauling: Cost per Net Ton Mile	Cost of Hauling: Average Haul in Miles	Cost of Hauling: Average Cost per Ton	Cost of Handling: Freight Fuel Disbursed July to November, 1921	Cost of Handling: Acct. 304-C, July-November	Cost of Handling: Average Cost per Ton	Cost of Hauling and Handling per Ton
First	67,998,600	$288,107	$ .00423	356	$1 49	48,312	$ 2,727	$ .0565	$1 56
Second	82,727,000	499,125	.00603	240	0 99	84,116	6,210	.0738	1 06
Third	2,162,400	23,558	.01090	240	1 84	5,513	997	.1810	1 73
Fourth	179,815,000	414,835	.00231	170	0 61	93,556	7,157	.0766	.60
Fifth	79,874,000	370,602	.00503	67	0 34	149,229	11,169	.0748	.42

(*)Note—Average net ton mile per month is used as divisor against average direct expense per month.

See note Table No. 3. Column 1—"Derivation of Cost Data"—explaining method of arriving at cost of haul for each division.

4770

TABLE 11

Average Number of Crew Hours per Trip

Run	Hours	Run	Hours	Run	Hours
A to B	9.7	E to F	9.2	H to I	13.3
B to A	9.7	F to E	9.6	I to H	12.8
C to B	7.2	F to G	7.0	H to J	11.7
B to C	7.8	G to F	6.8	J to H	10.2
D to C	3.1	E to H	9.8	G to K	10.3
C to D	3.9	H to E	8.4	K to G	8.4

Note—Above figures are to be used in connection with Tonnage Freight Service only.

APPLICATION OF TABLES

Direct Transportation Expense

WAGES OF ROAD CREWS:

Average hours on duty per trip is taken from record ..... Table 1 gives total straight pay per day or per 100 miles and the hourly overtime rate according to the class of road engine, the kind of service and the number of men in a crew. Table 2 is used to obtain the pay of engine crews where doubleheaders are operated. After computing the wage expense as above, multiply the result by the percentage in Table 6 in order to include the additional cost of light and terminal engine mileage.

FUEL:

The tons consumed per trip is taken from record ..... and the cost is computed on the basis of the prevailing average purchase price plus the cost of hauling and handling on the division under consideration, as shown in Table 3, Column 1. After obtaining this portion of the expense, multiply by the proper percentage taken from Table 6, as explained under "Wages of Road Crews."

WATER:

The amount used is obtained by multiplying the tons of fuel per trip by 2,000 (basis of one gallon of water per pound of coal). The cost per 1,000 gallons on various divisions is given in Table 3, Column 2. This expense must be multiplied by the proper percentage taken from Table 6, as explained under "Wages of Road Crews."

LUBRICANTS AND SUPPLIES:

Multiply the train miles by the proper divisional percentage, taken from Table 6, to obtain total engine mileage per trip (including light and terminal). The cost per engine mile for various classes of power is given in Table 3-A under "Repairs, Lubricants and Other Supplies for Locomotives."

ENGINEHOUSE EXPENSE:

Take the cost per dispatchment from Table 4 for the enginehouse affected and multiply by the proper divisional percentage in Table 6, as explained under "Wages of Road Crews."

FREIGHT TRAIN SUPPLIES AND EXPENSES:

Multiply the car miles, in thousands, per trip by the cost per 1,000 car miles as given in Table 3-B.

HELPER SERVICE:

Obtain the direct transportation expense per helper trip from Table 7, consulting record showing performance of freight trains as to the number of helpers used per train on the helper districts affected.

YARD SERVICE:

Take the cost per car through the yard affected from Table 5 and multiply by the number of cars per train. Where a one way movement through several yards is being considered, use one-half of the tabular cost per car for each of the terminal yards and the full cost per car for intermediate yards. Where a round trip movement is being computed—that is, loaded cars in one direction and empties in the other—simply apply the full cost per car for each yard affected, to the *outbound* trains only.

Operation of Line and Terminal Facilities—Direct Expense

STATION SERVICE:

The charges for Agents, Clerks and Supplies at so much per train mile on divisions affected—see Table 3, Column 3—is applied to all train movements, whether loaded or empty and regardless of commodity. Station Labor will only be applied to those classes of freight known to be involved and when it is necessary to consider this item the cost per ton handled can be taken from Table 8, for the stations affected.

COAL AND ORE WHARVES:

Take the cost per ton handled from Table 3-C when coal or ore shipments requiring handling through such facilities are involved.

GRAIN ELEVATORS:

Take the cost per ton handled from Table 3-C when grain shipments requiring the use of railroad elevators are involved.

FLOATING EQUIPMENT:

Take the cost per ton handled from Table 3-C when any traffic requiring the use of such facilities is involved.

Direct Maintenance of Equipment Expense

ROAD LOCOMOTIVES:

Multiply the train mile by the proper divisional percentage taken from Table 6 to obtain the total engine mileage per trip, including light and terminal. The cost per engine mile for running and classified repairs is given for various classes of locomotives in Table 3-A. These costs apply, for the given classes of power, on all parts of the railroad.

HELPER LOCOMOTIVES:

The total mileage—helping and light—for each helper trip is given in Table 7. The cost per engine mile for running and classified repairs is given for various classes of locomotives, in Table 3-A, as explained under "Road Locomotives."

[fol. 4772]

4772

YARD LOCOMOTIVES:

Table 5 gives the cars handled per engine hour based on the number of all inbound cars into the yard. In order to obtain the yard engine hours per train, this tabular figure should be doubled and then divided into the number of cars handled in such train, whether into or out of the yard affected. The tabular figure is doubled because it is considered that yard engine hours are about equally divided between the operations of handling cars of inbound and outbound trains, whereas the usual method of measuring yard engine performance is on the basis of inbound cars only. Engine hours per train—obtained as above—multiplied by 6 to reduce to a mileage basis, and then multiplied by the repair cost per mile in Table 3-A will give Yard Locomotive Repairs per train, into or out of the yard.

FREIGHT CARS:

Multiply the car mileage per train by the cost per car mile as developed for all divisions of the railroad and shown in Table 3-B.

FLOATING EQUIPMENT:

The cost per ton handled is given in Table 3-C and should be applied only where traffic requiring the use of such equipment is involved.

Direct Maintenance of Way Expense

ROADWAY, TRACK, ETC.:

The gross ton mileage per train is multiplied by the cost per 1,000 gross ton miles for the divisions affected, as indicated in Table 3, Column 4.

COAL AND ORE WHARVES:

The cost per ton handled is given in Table 3-C and should be applied only where traffic requiring the use of such facilities is involved.

GRAIN ELEVATORS:

The cost per ton handled is given in Table 3-C and should be applied only where traffic requiring the use of such facilities is involved.

Indirect Expense

TRANSPORTATION:

The train miles per trip is multiplied by the cost per train mile for the divisions affected--see Table 3, Column 5.

MAINTENANCE OF EQUIPMENT:

The total Direct Maintenance of Equipment Expense is multiplied by the cost per dollar as indicated in Table 3, Column 6, for the divisions affected.

4713

MAINTENANCE OF WAY:

The total Direct Maintenance of Way Expense is multiplied by the cost per dollar as given in Table 3, Column 7, on divisions affected.

GENERAL AND TRAFFIC:

To obtain this cost, total all of the following expenses—Direct Transportation, Direct Expenses of Operation of Line and Terminal Facilities, Direct Maintenance of Equipment, Direct Maintenance of Way, Indirect Transportation, Indirect Maintenance of Equipment, and Indirect Maintenance of Way—and multiply by the cost per dollar as given in Table 3, Column 8, for the divisions affected.

Fixed Charges

The unit values of items given under this head in Table 3-D are to be multiplied by the total car miles per trip for the run being considered.

The following tables give the result of solving a problem by the application of this method by determining the cost of handling coal between two points and of comparing the economic advantages or disadvantages of two routes.

Cost of Hauling Coal from A to E—Comparison by ACD and AXD Routes—Recapitulation

	Cost per Car via ACD Route	Cost per Car via AXD Route	Saving or Loss by AXD Route	
			Saving	Loss
Road Crew Wages	$ 5.24	$ 4.72	$ 0.52	.....
Fuel, Water, Supplies, etc.	10.61	9.26	1.35	.....
Helper Service	3.20	4.02	.....	$0.82
Yard Service	5.20	6.78	.....	1.58
Coal and Ore Wharf Operation	4.33	4.33	.....	.....
Locomotive Repairs	8.29	7.97	0.32	.....
Car Repairs	11.62	13.51	.....	1.89
Total Direct Operating Expense	$48.49	$50.59	.....	$2.10
Direct Maintenance of Way and Structures	$11.40	$14.89	.....	$3.49
Constant Transp. Expense	$10.83	$ 9.95	$0.88	.....
Constant Maint. of Equipment	5.54	5.81	.....	$0.27
Constant Maint. Way and Structures	4.04	4.18	.....	0.14
General and Traffic Expense	4.50	4.61	.....	0.11
Total Indirect Operating Expense	$24.91	$24.55	$0.36	.....
Total Operating Expense	$84.80	$90.03	.....	$5.23
Fixed Charges	31.24	36.26	.....	5.02
Grand Total	$116.04	$126.29	.....	$10.25

4774

Cost of Hauling Coal—A to E—via AXD Route

Train Districts	A and X		X and G		G and D		D and E		Total
	East	West	East	West	East	West	East	West	E & W
Items									
Haul in Miles	48	47	114	110	95	97	75	72	660
Class of Road Locomotive	Mikado 65-lds.	Mikado 90-mts	Mallet 65-lds.	Mallet 90-mts.	Mikado 70-lds.	Mikado 90-mts	Mikado 71-lds.	Mikado 80-mts.	.....
Train Consist	4550	1800	4550	1800	4900	1800	4970	1600	.....
Gross Train Load—Tons									.....
Cost per Car									
Road Crew Wages	$ 0 39	$0 28	$ 1 25	$ 0 74	$ 0 48	$ 0 33	$ 0 70	$ 0 85	$ 4 72
Fuel, Water, Lubricants, Engine and Train Supplies, Enginehouse Expense	0 69	0 52	2 16	1 57	1 24	1 05	1 05	0 96	9.96
Helper Service	0 35	0 14	1 54	0 55	0 28		1 16		4.02
Yard Service	0 56	0 68	[redacted]	0 42	0 42	0 72	0 72	2 58	6.78
Coal and Ore Wharf Operation	....						4 38		4.38
Locomotive Repairs	0 54	0 38	2 34	1 22	0 85	0 63	1 14	0 87	7.97
Car Repairs	0 99	0 96	2 34	2 26	1 95	1 92	1 54	1 48	13.51
Total Direct Road Expense	$ 3 52	$ 2 96	$10 31	$ 6 76	$ 5 22	$ 4 72	$10 64	$ 6 46	$50.89
Direct M. of W. and S. Expense	$ 1 98	$ 0 55	$ 4 66	$ 1 29	$ 1 68	$ 0 49	$ 3 49	$ 0 77	$14.90
Indirect Transp. Expense*	0 61	0 43	1 48	1 01	1 48	1 17	2 05	1 75	9.95
Indirect M. of E	0 38	0 33	1 16	0 86	0 87	0 62	0 74	0 65	5.81
Indirect M. of W. and S	0 29	0 08	0 68	0 19	0 46	0 14	1 92	0 42	4.18
General and Traffic Expense	0 38	0 24	1 03	0 57	0 71	0 54	0 74	0 40	4.81
Total Indirect Expense	$ 1 66	$ 1 08	$ 4 32	$ 2 63	$ 3 52	$ 2 67	$ 5 45	$ 3 22	$24 85
Total Operating Gen. & Traffic Expense	$ 7 16	$ 4 59	$19 29	$10 68	$10 42	$ 7 88	$19 58	$10 45	$90 03
Fixed Charges	2 60	2 59	6 29	6 07	5 24	5 36	4 14	3 97	36 26
Grand Total	$ 9 76	$ 7 18	$25 58	$16 75	$15 66	$13 24	$23 72	$14 42	$126 29

*Includes Station Agents, Clerks and Supplies, from "Operation of Line and Terminal Facilities."

Cost of Hauling Coal—A to E—via ACD Route

Train Districts	A and C				C and D		D and E		Total
	A and B		B and C						
	East	West	East	West	East	West	East	West	E & W
Items									
Haul in Miles	23	23	76	77	110	110	75	72	486
Class of Road Locomotive	Mallet 64-lds	Mallet 50-mts	Mallet 32-lds	Mallet 50-mts	Mikado 70-lds.	Mikado 90-mts	Mikado 71-lds.	Mikado 80-mts	.....
Train Consist	4-60	1000	2240	1000	4900	1800	4970	1600	.....
Gross Train Load—Tons									.....
Cost per Car									
Road Crew Wages	$0 28	$0 28	$1 62	$0 89	$0 54	$0 38	$0 70	$0 55	$5 24
Fuel, Water, Lubricants, Engine and Train Supplies, Enginehouse Expense	0 50	0 43	3 20	1 96	1 37	1 12	1 05	0 98	10 81
Helper Service			1 76		0 28		1 16		3.20
Yard Service	0 56			0 31	0 31	0 72	0 72	2 58	5.20
Coal and Ore Wharf Operation							4 33		4.33
Locomotive Repairs	0 37	0 37	2 66	1 24	0 94	0 70	1 14	0 87	8.29
Car Repairs	0 47	0 47	1 56	1 68	2 26	2 26	1 84	1 48	11.62
Total Direct Road Expense	$2 18	$1 55	$10 80	$5 98	$5 70	$5 18	$10 64	$6 46	$48 69
Direct M. of W. and S. Expense	$1 36	$0 39	$2 23	$0 65	$1 95	$0 56	$3 49	$0 77	$11 60
Indirect Transportation Expense*	$0 33	$0 43	$1 96	$1 27	$1 71	$1 33	$2 05	$1 75	$10.83
Indirect M. of E	0 22	0 21	1 08	0 72	1 00	0 92	0 74	0 65	5.04
Indirect M. of W. and S	0 29	0 08	0 50	0 18	0 54	0 15	1 92	0 42	4.04
General and Traffic Expense	0 30	0 18	0 97	0 51	0 80	0 60	0 74	0 40	4.80
Total Indirect Expense	$1.14	$0 90	$4 51	$2 64	$4.05	$3 00	$5 45	$3.22	$24 91
Total Operating, Gen. & Traffic Expense	$4 68	$2 84	$17 54	$9 27	$11.70	$8 74	$19 58	$10 45	$84 89
Fixed Charges	1 27	1 27	4 20	4 25	3 07	3 07	4 14	3 97	31 24
Grand Total	$5 95	$4 11	$21 74	$13 52	$17 77	$14 81	$23 72	$14 42	$116 04

*Includes Station Agents, Clerks and Supplies, from "Operation of Line and Terminal Facilities."

[fol. 4775]

4775

[fol. 4776]

I. & S. Docket 6615
Exhibit —— (EMT-4)
Witness Talbott

Reproduction
of
Testimony Given in
Ex Parte 212 by Operating
Representatives of
Respondent Carriers,
as follows:

Verified Statement of Mr. Walter H. Harris, Lighterage Superintendent of the Marine Department of The New York Central Railroad Company.

Cross Examination of Mr. Walter H. Harris, Lighterage Superintendent of the Marine Department of The New York Central Railroad Company.

Verified Statement of Mr. E. J. Burke, Terminal and Lighterage Agent of The Delaware, Lackawanna and Western Railroad Company.

Cross Examination of Mr. E. J. Burke, Terminal and Lighterage Agent of The Delaware, Lackawanna and Western Railroad Company.

Verified Statement of Mr. Oscar A. Frauson, Superintendent of Lighterage and Stations, New York Harbor, for Erie Railroad Company.

Verified Statement of Mr. Peter J. Ellis, Manager of Lighterage and Marine Service for the Lehigh Valley Railroad Company.

[fol. 4777]

Verified Statement No. W-42

Affiant: Walter H. Harris

Before the

INTERSTATE COMMERCE COMMISSION

Ex Parte No. 212

Increased Freight Rates, 1958

Verified Statement of

Walter H. Harris

The New York Central Railroad Company

C. Special and accessorial charges:

I. New charge on waterborne traffic. (Items 220 and 220-A).

[fol. 4778] My name is Walter H. Harris. I am employed by The New York Central Railroad Company as Lighterage Superintendent of the Marine Department with offices at Weehawken, New Jersey. I have been employed in various capacities in the Operating Department for approximately forty years. I have held my present position for the last four years. In this position I am responsible for the operation of the Marine Department and all lighterage operations in New York harbor. By reason of the fact that most piers in New York harbor can be reached only by water, it is necessary to complete delivery or effect receipt of traffic by water craft. Marine operations, therefore, play a very significant part in railroad freight service at New York.

Lighterage movement is peculiar to the Port of New York because of its geographical location and the concentration of rail freight terminals on the New Jersey shore of

the Hudson River. The New York Central is the only railroad with direct rail freight entrance to Manhattan. All of the other railroads must float freight cars across the Hudson River. The lighterage system is preferred by steamship operators because of the ability to load and discharge cargo simultaneously on the off-shore side of the vessel as well as on the land side. The lighterage system also enables every railroad serving the port to move freight to or from every vessel in the harbor regardless of its location.

[fol. 4779] While a certain amount of domestic freight is delivered to or received from docks of consignees and shippers located within the lighterage limits of the harbor, the great majority of lighterage operation is due to the requirements for handling export and import traffic. The New York Central's marine facilities, docks, cranes, tugs, lighters, etc., are primarily used in the handling of export-import traffic. There is a substantial difference in the services required of the railroads for the handling of domestic traffic including or excluding domestic lighterage and services required on export-import, coastal and inter-coastal traffic.

The profitable operation of ocean-going vessels requires that their stowage make maximum use of available space. Loading is generally set up in inverse order to the foreign ports of call, that is farthest port—lower holds, etc. It is also essential that heavy pieces, known as bottom cargo, be available for loading in the lower parts of the ship. Stability and speed at sea depend upon the orderly fulfillment of this requirement. To accomplish the aim of orderly loading with maximum efficiency, the steamship operator establishes a system of "permits" which enable them to request particular traffic, and therefore particular cars, in the order desirable to them. The rail carriers handling export shipments deliver the commodities in the manner requested. This method of operation, of course, requires additional services on the part of the railroad which are not incurred in the handling of domestic traffic.

[fol. 4780] Export-import, coastwise, and inter-coastal traffic, along with a minor portion of domestic traffic, is handled principally through the New York Central rail

head at Weehawken, New Jersey. When a train arrives at the receiving yard behind the New Jersey rail head, domestic freight may be classified and delivered immediately, including that portion which requires lighterage movement. Because of the permit system hereinbefore discussed, export-import, coastwise, and inter-coastal traffic, hereinafter referred to as waterborne traffic, must be held at the railroad yard after receipt until notification of arrival has been given the consignee or its agent and until the latter has subsequently furnished an order for delivery to a specific dock or steamship on a specific date. As a result, the railroads must maintain holding yards where waterborne freight is held pending the order from the consignee's agent. Thus at least one extra switching movement is required on all waterborne traffic. In most instances, cars holding waterborne traffic will be switched several times since the cars cannot be classified in advance and must be drilled out as the consignee's order comes in. Seven days free time, exclusive of Saturdays, Sundays, and Holidays, is presently allowed on export traffic before storage commences. Although the carriers here propose a reduction in free time on export traffic to four days, only 48 hours is permitted on domestic freight. There is no free time at rail head on domestic freight for subsequent light- [fol. 4781] erage movement. That freight is deliverable immediately and is transferred to the lighter when received.

Because of the additional services and paper work involved in the handling of waterborne traffic, the New York Central is required to maintain a Lighterage Department, employing approximately thirty people, which is responsible for the handling of this traffic.

When a consignee has secured space aboard a vessel and a permit date, it then deposits with the Railroad's Lighterage Department (a) orders specifying ship, pier, and permit date and (b) a dock receipt as evidence of delivery when completed to the steamship. Upon the receipt of the order for a certain car or cars, these units must be drilled out of the hold tracks and taken to the rail head for transfer of lading to lighter. The transfer of lading from car to lighter is performed wholly by railroad labor at no additional charge. While the same transfer of lading is per-

formed on domestic lighterage freight, the latter constitutes only a small proportion of the total domestic freight handled at New York and, therefore, the cost of labor and facilities in performing the transfer of lading are primarily incurred on waterborne freight.

When the transfer is completed, the lighter is then towed to the steamship pier and placed in the proper position for unloading. Under the applicable tariffs, the railroads are required to load to or receive from one hundred feet in on the dock of the steamship pier or to make the lading [fol. 4782] available to or receive it from ship's tackle. The New York Central employs a stevedoring company to perform this transfer of lading service. On eastbound movements we are billed by the stevedores at the rate of 87 cents per ton. The rate on westbound movements is $1.21 per ton. To both of these figures must be added an additional 8 cents per ton for fringe benefits.

On domestic freight the railroad is not required to load to or from the owner's docks. If the railroad is requested to load or unload its marine equipment at the point of receipt or delivery, the applicable tariffs provide for an additional charge of 7½ cents per one hundred pounds.

Under the applicable tariffs, waterborne traffic as defined herein is entitled to split delivery privileges. As many as five individual lighterage deliveries can be required of the rail carrier from a single carload lot. Such deliveries may be required within a few days' time or over an extended period. The first two deliveries are free, and a tariff charge is assessed on the next three. It must be kept in mind that split deliveries require considerable additional work in segregation of freight, storing balances on piers for future delivery, and arranging for special lighterage movements.

No splitting is permitted on domestic waterborne traffic. Only one delivery is made on each carload.

On many occasions it becomes necessary in order to free equipment for use to bring the car to the pier in advance [fol. 4783] of an order from the consignee and unload the lading to the pier. This, of course, means that a double handling will be involved in the transfer from the car to the pier and eventually to the lighter. If a car contains lading for different destinations, it is often necessary to

unload either part or all of the car in order to reach that portion of the lading which has been ordered. The balance is either returned to the car or left on the pier awaiting orders. In either case, additional handling is involved. None of these difficulties are encountered in the handling of domestic traffic.

The Lighterage Department must clear all export-import freight with customs officials.

United States customs inspectors must be on hand to check all export and import freight. The latter are, of course, paid by the United States Government during the regular business hours from 8:00 a.m. to 5:00 p.m. In the event a railroad wishes to continue its operation during the night and early morning hours, the customs inspector must be paid by the railroad itself on an overtime basis.

[fol. 4784]

VERIFICATION

STATE OF NEW YORK)
) ss.:
COUNTY OF NEW YORK)

Walter H. Harris, being duly sworn, deposes and says that he is Lighterage Superintendent of the Marine Division of The New York Central Railroad Company, one of the petitioners herein, and that the facts set forth in the above and foregoing statement are true and correct to the best of his information, knowledge and belief.

/s/ WALTER H. HARRIS
Walter H. Harris

Sworn to before me this
11th day of April, 1958.

/s/ FREDERICK B. OVERBAUGH, JR.
Frederick B. Overbaugh, Jr.
Notary Public, State of New York
Qualified in Westchester County.
No. 60-2988550
Certificate filed in New York County
Commission Expires March 30, 1959

[fol. 4785]

Cross Examination of Mr. Walter H. Harris

Ex Parte 212—Increased Freight Rates, 1958

Transcript pages W-137 to W-145 inclusive

May 19, 1958.

WALTER H. HARRIS was sworn and testified as follows:

Direct examination.

By Mr. Daily:

Q. Will you state your name, sir?

A. Walter H. Harris.

Q. Are you the Walter H. Harris whose affidavit appears attached to Verified Statement No. W-42?

A. Yes.

Mr. Daily: The witness is available.

Cross examination.

By Mr. Miller:

Q. Mr. Harris, the lighterage service that you described in your Verified Statement has certain advantages to the railroads serving that port, does it not?

A. The advantages to the extent that all of us can serve the same piers, yes.

Q. And they have the advantage of providing on water facilities that you would otherwise have to provide on land, isn't that true?

A. Well, that is true, yes.

Q. And instead of switching a car or freight on track on there you can switch it on a lighter, isn't that right?

[fol. 4786] A. That isn't so simple. A lighter in the description I gave is where the actual transfer of the freight is made from car to boat, and then from boat to dock.

Q. Do you not also provide lighterage on domestic freight?

A. Yes, we do.

Q. Do you have any idea as to the relative proportion of lighterage for domestic as compared with waterborne freight?

A. Speaking for the New York Central with whom I am connected, the preponderance very much so is export-import-coastal-inter-coastal. I would say not more than ten per cent, if that much, was so-called domestic lighterage.

Q. Your railroad has direct trackage access to Manhattan, doesn't it?

A. Yes.

Q. Could it be that your proportion of lighterage for domestic traffic is a little lower than for some of the other roads?

A. I wouldn't know that.

Q. Is any of this waterborne traffic handled on cars that are lightered, that is, not loaded or unloaded?

A. Yes. When the steamship operator will permit a float operation as we call it, we perform that at that time.

Q. Do I understand your statement does not apply to that sort of traffic?

Mr. Daily: Which statement?

The Witness: I don't quite understand.

[fol. 4787] By Mr. Miller:

Q. Your statement No. W-42. Are you talking there about the traffic that is lightered in cars?

A. No. I will put it this way: There are two ways of handling to the steamship. One is by transfer to lighter and movement to the steamship pier, or the second in lieu of that lighterage service is car float movement, where you put the car on to a car float and deliver it to shipside or to dock. But that is in the minority, because most steamships will not take a car float because of limited room and so forth, and their selection of piers, and the amount of freight that we transport from railhead to steamship piers by car float is very small.

Q. How much freight can be loaded on one of these lighters?

A. The equipment we have and use has a capacity of about 350 tons. That doesn't mean that the average per load is that by any means.

Q. Would you say it would run around about 10 carloads of the freight?

A. I am talking about a lighter in this respect where the freight is moved by package into the lighter, and then transported. Those are the vessels that are about 350 tons in capacity. A car float will run one thousand tons, and you can probably get from 10 to 14 cars on a car float.

Q. Do you have any data to indicate that this lighterage operation is any more costly than handling the same sort of freight all-rail?

[fol. 4788] A. I haven't with me, but from my experience on the railroad, and the access to costs, that I have had in my possession or prepared at my direction, yes. The export or the so-called water-borne freight is more expensive than domestic delivery of freight.

Q. I didn't ask that question. I was speaking of the handling of it by the lighterage as compared to handling it by rail, where you actually handle it without lightering it at all. Do you have any information on that?

A. No, because there are so many factors. There are places in New York where freight may be delivered by rail. For example, Port Newark. But it costs us a considerable sum to deliver cars to the Central of New Jersey Railroad for movement to shipside by rail in that instance, all of which is cost to us.

Q. So it could be that this lighterage operation is really no more costly to you than if you had to handle the freight to shipside by rail car?

A. Well, again, in New York you can't do it. It is physically impossible. So it is hard to draw a comparison. You cannot find ways or means of access by rail to the 150 or more steamship piers on Manhattan Island, or a good part of the Brooklyn or Staten Island. Even in New Jersey the piers are not accessible in many cases to rail movement. So it is hard to draw a comparison.

Q. Then you would have to truck it to the shipside unless [fol. 4789] you lightered it; is that right?

A. We have a proviso in our tariffs that permit the trucking to shipside, and we indulge in that.

Q. Is that more expensive than lighterage, or not?

A. Again, the factors can check themselves. Up to a certain tonnage, perhaps trucks are cheaper. Over a certain tonnage, the larger capacity lighter is the cheaper method of transportation.

Q. In your statement you go into considerable detail about the necessity of holding cars for this water-borne traffic until a permit is received or indicated to move the freight. Where do you hold these cars?

A. At the rail head. That is, in the case of the New York Central, either at Weehawken or at 60th Street in Manhattan. Weehawken, N. J., or 60th Street in New York, N. Y.

Q. Then in this lighterage operation you described, you unload the freight from the car to the lighter, and lighter it to shipside; right?

A. That is ordinarily the case.

Q. About how many cars do you ordinarily unload to a lighter to move?

A. It all depends on the amount of freight available for delivery to a steamship pier. In other words, if you add a carload of freight for 57 North River, and you had four carloads of freight for 32 North River, you would have to probably use two lighters, one of which can take one car [fol. 4790] and the other four cars. It depends on your orders and the freight available.

Q. Well, would you operate a lighter for just one carload of freight that had a capacity of 350 tons?

A. We might or we might not. We might truck such freight. But if we had no truck available, if there were other reasons that required lighterage service, the governing factor is the date of delivery requested by the receiver of the freight, and if he has got to have the freight there on Monday morning, you have got to get the freight there on Monday.

Q. Do you have any information as to the average load of these lighters?

A. Well, anything I could give you here would be recollection.

Q. When you say "switch" these cars in for lightering, do you switch them in groups?

A. To answer that question, cars that are ordered by car number, by the owner or freight forwarder in whose care they are consigned, are likewise picked out of the holding yard or holding track, and set in on the pier to unload.

Q. Ordinarily do you move just one car at a time for that sort of operation, or do you move them in groups?

A. They are not grouped. They are ordered individually. It might occur that you have five or ten cars of one commodity from one shipper that was in a string on the same track; you might have that luck, but as far as having any prearranged grouping, there is none of that performed, except dividing your so-called open top freight [fol. 4791] from your closed car freight, because they are eventually headed for two different types of piers. One for a covered pier, the other for an open pier.

Q. But there wouldn't be enough freight going to the same ship, from a number of consignors, that would allow you to switch more than one car at a time?

A. Oh, yes. In other words, if on a track the orders at the end of the day, or whenever your yardmaster after switching out his hold tracks, he certainly would switch out all the cars that were ordered that day, and when you got them in on your piers you consolidate the loads for the respective steamship piers.

Q. Does that sort of a result enable you to physically move a number of cars together in one switch?

A. I won't deny it doesn't, in many cases. It would be practically impossible to just switch out one car and deliver it to the pier. We have to work to that extent of consolidating as much as possible.

Q. When you break up a train from some inland point can't you move it into the hold track, move all of the waterborne cars to the hold track at the same time, or consolidate them for that purpose?

A. Whether or not they are grouped upon arrival is the governing factor. Some yard, either beyond the rail head

or if the grouping has been performed, or if not, why, it has to be grouped at the receiving yard at Weehawken, or [fol. 4792] 60th Street. If a train comes in, it has to be switched.

Q. When you break up a train, in which there is both domestic freight and freight that has got a water-borne movement, isn't it possible to move the cars from that break-up point to the same hold yards in groups?

A. Oh, absolutely. When you are switching your train you make a classification of lighterage cars. Those are the cars that are eventually moved over into a holding track where they are held until the order is received from the freight forwarder or the consignee to deliver.

Q. Then wouldn't it be true that these cars holding freight for water-borne movements are more susceptible to being switched in groups than would be the domestic freight?

A. No. Our domestic freight ordinarily you switch for respective industrial engines or pullers. You switch out 10 cars for this puller, and 20 cars for that industrial engine, and he will make his deliveries, himself.

In this case you have to switch out and return those that are not ordered to the hold track, and then reswitch them again tomorrow if necessary, and again the third day if necessary. That is the difficult part of lighterage, the switching and reswitching of lighterage freight on the hold track awaiting delivery order.

Q. How much of your water-borne freight originates or terminates in the metropolitan area of New York?

[fol. 4793] A. I haven't got the figure in percentage, but it is approximately 20 percent in Manhattan and about 80 percent in Jersey—that is New York City.

Q. What percentage of your metropolitan area traffic originates or is destined within that metropolitan area as compared with traffic that requires what you might call a line-haul?

A. Oh, wait a minute, you have me confused. I was talking lighterage freight.

Q. Yes.

A. As I told you, we had two points of receipt for lighterage freight, that was Manhattan and Weehawken. To

that I thought I was answering you by saying 20 percent of our lighterage freight came into Manhattan and 80 percent into New Jersey. If you will tell me again what you want, I don't think I answered you.

Commr. Winchell: Mr. Miller, I am sorry, but we are going to have a recess.

Mr. Miller: All right.

[fol. 4794]

Cross Examination of Mr. Walter H. Harris, resumed

Ex Parte 212—Increased Freight Rates, 1958

Transcript pages W-159 to W-166 inclusive

May 20, 1958.

WALTER H. HARRIS resumed the stand and testified further as follows:

Cross examination.

By Mr. Callas:

Q. Mr. Harris, do you have an opinion as to what percentage of waterborne freight is handled by lighter?

A. As compared with what?

Q. As compared to either direct loading from the piers or by car float.

A. General cargo is handled principally by lighter. I couldn't give you a percentage.

Q. When you say principally, does that mean that practically all of it is handled by lighter?

[fol. 4795] A. No, it is not.

Q. Could you say that 80 per cent of general cargo is handled by lighter?

A. I would hate to give you an estimate. I would say the greater percentage, over 50 per cent.

Q. Now, Mr. Harris, what determines whether or not cargo is handled either by lighter or by car float?

A. The disposition of the steamship company and the

amount of freight to be handled. Of course, to get car float movement you have to have six cars. That is the first stipulation. The second is whether or not the steamship pier, in its slips, and so forth, can take a car float, which is, of course, of greater length and breadth usually than a lighter is.

Q. When a car float is used, Mr. Harris, who unloads it on the vessel?

A. It is loaded—on to the vessel?

Q. Yes.

A. There are two operations. One is from the car float to one hundred feet in on the dock, or made available to shipside. That is the obligation of the railroad company. They have that work performed by their stevedores.

Q. Does the New York Central on the island of Manhattan have any direct access to the piers themselves? In other words, does it have any rails that run on to the wharf acreage?

A. No, sir.

[fol. 4796] Q. Does it anywhere in the New York area have tracks that run on the wharf aprons?

A. No. We have arrangement with the Central of New Jersey for delivery to shipside at Port Newark, and through the Hoboken Shore Railroad at Hoboken, to the Hoboken piers.

Q. Mr. Harris, are you familiar at all with the New York Central operation in Boston?

A. No, I am not.

Q. Mr. Harris, let me ask you a hypothetical question. Assuming for the moment that the New York Central actually had tracks that ran on to the wharf aprons, have you an opinion whether that would be a cheaper operation than the use of lighters?

A. You ask me an opinion, that is all I can give.

Q. Yes, sir, I realize that.

A. And the opinion is based on the practicability of the thing as well as your hypothetical question.

With the number of sailings in New York, and the number of steamship companies that serve New York, it is impractical. Now, from the standpoint of whether or not trackside delivery is cheaper than lighter, well, that de-

pends on how much switching you have to do at your piers, and so forth and so on. You can't just put a string of cars in on trackside if it is of many kinds of freight, nor can you do so on split deliveries.

So it is difficult for me to give you an opinion of any value.

[fol. 4797] Q. Assuming further, Mr. Harris, that you had cargo that was being carried in open-top cars, would that make any difference as to the difference between trackside on the pier and lighterage?

A. As I say, on the New York Central we have no rails that serve the pier.

Q. I realize that, but if you recall, Mr. Harris, this was on the basis of the hypothetical question that I asked you.

A. Of course, ships are loaded in various holds. It would seem to me that a car of open-top freight, or several cars of open-top freight, when placed in along side the steamship would have to be switched in the order of where they would be required to handle the ship's tackle from car to ship. Again that is only my opinion.

Q. Mr. Harris, have you an opinion as to whether or not lighterage makes a substantial contribution to terminal costs?

A. General costs of delivering freight?

Q. Yes, sir.

A. It does.

Q. It does?

A. Yes.

Q. Don't you, in effect, Mr. Harris, have a double operation here? You have to load on to a lighter. Now, is that operation of loading on to a lighter, is that similar to, say, loading on to a vessel from tracks running along the wharfing?

[fol. 4798] A. Well, I am not exactly—

Q. I didn't ask exactly, I asked if it was similar.

A. It is loading from car to vessel.

Q. Yes.

A. To that extent it is similar.

Q. Your problems are the same, are they not? Your problems are the same to a great extent?

A. I wouldn't say they were identical, or anywhere near

it. When you load into a ship, you are loading into the hold of the vessel, you have to lift and lower, whereas with a lighter you handle it with a fork lift machine, just as you will transfer from car to car.

Q. How about the switching operation required in both instances? Is there any similarity as to that?

A. Mr. Callas, I have—these are so many hypothetical things.

Mr. Daily: If you will excuse me, Mr. Commissioner, I have permitted this to go on at some length, but I think we have reached an extreme. We seem to be going solely on hypothetical questions, and it is a good deal beyond Mr. Harris' direct testimony in many respects.

Mr. Callas: Mr. Chairman, if I may be heard on this. We have here a verified statement which purports to present a factual picture in support of this new charge on waterborne traffic. Now, all I am trying to do is to get a clarification and to see what factors in this factual presenta-
[fol. 4799] tion bear directly upon the necessity of having this new charge. That is precisely what I am trying to do, and I am trying to develop here primarily what extent, if any, lighterage is involved in these costs.

Mr. Daily: That is not the question, as I understand it. He is attempting to compare a lighterage operation with rail car delivery on apron tracks which this witness has already said does not take place at New York.

Just one thing further: I think Mr. Callas—you are Mr. Callas, are you not?

Mr. Callas: Yes, sir.

Mr. Daily: Is from the Port of Boston. I don't know what his interest is in Mr. Harris, I don't know what his questions are, but I think they can be properly, more properly directed to the witness for Boston.

Mr. Callas: That is correct. But let me say, Mr. Chairman, I am trying to see, and Mr. Harris testified yesterday that he has had extensive experience and that the records of the New York Central are available to him, and on the basis of that I imagine Mr. Harris has a general opinion on these problems. I am primarily interested in the Port of Boston, we have no lighterage operation there. What I

am trying to develop through Mr. Harris is to see whether or not the lack of presence of lighterage is of any consequence in trying to determine the validity and the justification of this charge.

[fol. 4800] Commr. Winchell: The witness has already said he has no knowledge and has expressed an opinion. You may proceed along that line.

By Mr. Callas:

Q. If I can recall my last question, I think, Mr. Harris, I asked you if the switching operations involved first in loading lighters, and secondly in loading vessels from pier tracks, is in any way similar?

A. As I recall, I said there is the similarity of loading from car to ship, or from car to waterborne vessel.

However, in loading to a ship you lift the freight and lower it into the hold of a ship. When you load to lighter, the lighter is put against your dockside similar to another car and this loaded car to door of scow or barge.

Q. Mr. Harris, my question specifically was whether the problem relating to switching, not to loading, was the same in loading on to lighters or loading on to vessels.

In other words, are the problems of switching, not necessarily the loading aspect, but merely the switching aspects, are they similar in the two operations?

A. Insofar switching cars after the arrival of the train at the railhead, and the holding of those cars for a delivery order from the forwarder, or from the consignee, or from the forwarder, those operations, as I see it, are identical. Also, in switching from the hold track on to the pier as ordered.

Now, after you get to the pier, when freight is delivered [fol. 4801] into warehouse such as our docks are, they can be handled any place along those docks, and I would say that the switching might—or the dockside delivery might entail a little more switching than which exists with lighters, because with lighters, once they are placed, they are there.

Q. One further question: What determines the order in which a car is unloaded on to a lighter, its arrival at the

loading yard, or special instructions from the consignee or forwarder?

A. Instructions from the consignee or forwarder.

Q. Is there any tendency, say, generally, for a car that arrives last to leave first?

A. Oh, yes.

Mr. Callas: Thank you, that is all.

Commr. Winchell: Does that conclude the cross examination of Mr. Harris?

Mr. Daily: Yes, sir. We offer Statement W-42.

Commr. Winchell: It will be received.

(Verified Statement No. W-42, Witness W. H. Harris, was received in evidence.)

[fol. 4802]

Before the

INTERSTATE COMMERCE COMMISSION

Verified Statement No. W-48
Affiant: E. J. Burke

Ex Parte No. 212

Increased Freight Rates, 1958

Verified Statement of

E. J. Burke

Lackawanna Railroad

C. Special and accessorial charges:

I. New charge on waterborne traffic. (Items 220 and 220-A).

[fol. 4803]

BEFORE THE

INTERSTATE COMMERCE COMMISSION

EX PARTE NO. 212

INCREASED FREIGHT RATES, 1958

VERIFIED STATEMENT OF

E. J. BURKE

My name is E. J. Burke, Terminal and Lighterage Agent of the Lackawanna Railroad. My office address is Pier 13, North River, New York 6, New York. I have been employed by the Lackawanna Railroad for the past 33 years and for the last 11 years have been the Terminal and Lighterage Agent.

The purpose of this statement is to show the greater service furnished by the Lackawanna in handling lighterage free export, import, coastwise or intercoastal traffic than the service furnished in the handling of lighterage free domestic traffic to or from private or public docks within the lighterage limits of New York Harbor.

When a train arrives at the Hoboken Terminal, the export cars are switched out of the train and placed on hold tracks until ordered. Export carload freight is presently allowed 7 days free time as compared with 48 hours free time on domestic freight. The hold tracks consist of 18 tracks, which range in capacity from 15 cars to 30 cars each. These tracks are located immediately west of the [fol. 4804] bulkheads of piers 3 and 4 in the lighterage section of the Hoboken Terminal. Export cars are entitled to five lighterage deliveries, two of which are free, and three on which a tariff charge is assessed.

In some instances export cars are switched more than once before being ordered. As a car is ordered, it is switched from the hold track and brought to a working track, where the car is unloaded either to the dock or to a lighter. If the car has more than one delivery in it, but only one delivery is ordered, the entire car must be unloaded, and checked from car to dock, and car to boat. As

subsequent deliveries are ordered, the freight must be picked up from the location on the dock, and rechecked again from dock to boat, so as to insure correct delivery. Approximately 30% of export cars are ordered as full car lots and the entire car is handled in one delivery. On about 70% of the cars two or more split deliveries by lighter are performed by the railroad.

In the event that cars for export are not ordered upon arrival or shortly thereafter, they are brought from the hold tracks and placed on working tracks, and unloaded and checked to a dock so as to release equipment. When this freight is later ordered, it is then picked up from the location on the dock and rechecked and loaded to a lighter for steamer or steamship pier delivery.

As contrasted with this handling of export cars, domestic cars for lighterage delivery are in most instances ordered before arrival. When the train arrives at Hoboken, these [fol. 4805] domestic cars are switched out of the train, placed on a working track upon arrival and then loaded from car to boat, and checked. This freight is handled only once as it always moves in solid car lots.

In the case of export delivery by railroad lighter either to the steamship pier or direct to shipside, the railroad assumes the cost of unloading the freight. In the case of domestic delivery by lighter, the consignee must unload the freight or else pay the tariff charge if the railroad is requested to perform the unloading.

On westbound lighterage free import, coastwise or intercoastal freight, the railroad loads the freight at its expense as contrasted with westbound domestic freight handled by lighter on which the shipper performs the loading or pays the loading charges provided for in the tariff if he requests the railroad to perform this service.

The westbound import, coastwise or intercoastal freight, after being towed to the railroad's lighterage terminal in Hoboken, is loaded into cars by railroad labor and the cost of blocking and bracing the freight is assumed by the railroad. In the case of westbound domestic freight, it is loaded into cars by railroad labor, but the cost of the bracing and blocking is paid for by the shipper in accordance with tariff provisions.

There are also other additional costs and handling in connection with export and import shipments that do not occur on domestic shipments. The Lackawanna maintains an office and a customs clerk at 26 Beaver Street, New York City, whose entire time is devoted to handling U. S. [fol. 4806] Customs documents that are necessary to clear export and import freight and to perform other duties incident thereto. As a typical example, an export shipment of rubber tires is consigned to New York Lighterage for export to South America. At New York the shipment is to be delivered to two different steamships. Our customs clerk in New York City first learns of this shipment when he receives a copy of the manifest which describes what is in the particular car. The customs agent keeps a file of these manifests. The original manifest accompanies the car in transit and upon arrival of the car at Hoboken the manifest is sent to the U. S. Customs Inspector in New York City. The consignee at New York, who is often a customs broker, prepares an export declaration of the goods shown on the manifest which is filed with the Collector of Customs and a copy is filed with the railroad's customs clerk who checks the export declaration against the manifest. As this is going to be a split delivery shipment, the railroad's customs clerk prepares the split manifest papers and a copy is sent to the Customs Inspector whose duty it is to supervise the loading and unloading of the freight and to certify that all the required documents are in order. If the Customs Inspector works overtime in performing such duties, the railroad must pay the government for such overtime. Each step of the handling of an export or import shipment has to be properly documented and if any change occurs during the transit on the railroad, as for example a change in the port of discharge or a change in the steamship to which the shipment is to be delivered, certain forms are required to document such changes and it is the railroad [fol. 4807] customs clerk's duty to see that such documentation is prepared so that there will be no delay in the expeditious handling of such foreign shipment.

/s/ E. J. Burke

[fol. 4808]

VERIFICATION

State of New York)
: ss.
County of New York)

E. J. BURKE, being duly sworn on oath deposes and says that he is the person who prepared or had prepared under his direction the foregoing statement; that he has read the same and that the statements therein contained are true and correct to the best of his knowledge, information and belief.

(Signed) E. J. BURKE
E. J. Burke

Subscribed and sworn to before
me this 9th day of April, 1958.

(Signed) RICHARD E. COSTELLO
Richard E. Costello
Notary Public, State of New York
No. 31-0775150
Qualified in New York County
Commission Expires March 30, 1959

[fol. 4809]

Cross Examination of Mr. E. J. Burke

Ex Parte 212—Increased Freight Rates, 1958

Transcript pages W-335 to W-339 inclusive

May 21, 1958.

E. J. BURKE was sworn and testified as follows:

Direct examination.

By Mr. Costello:

Q. Mr. Burke, will you please state for the record your [fol. 4810] full name and home address?

A. Edward J. Burke, 19 Berwyn Street, East Orange, New Jersey.

Q. Mr. Burke, will you please state by whom you are employed and in what capacity?

A. I am employed by the Lackawanna Railroad as Terminal and Lighterage Agent.

Q. Mr. Burke, have you prepared a statement in this proceeding which has been designated Verified Statement No. W-48?

A. I have.

Mr. Costello: The witness is tendered for cross examination.

Commr. Winchell: Mr. Miller.

Cross examination.

By Mr. Miller:

Q. On page 3 of your statement you state, "In the case of export delivery by railroad lighter, either to the steamship pier or direct to shipside, the railroad assumes"—wait a minute, I am sorry, the sentence I had in mind was on page 2, the sentence: "In some instances export cars are switched more than once before being ordered."

Do I understand by that that this switching is the switching within your hold yard?

A. No. We have five storage tracks that just contain lighterage freight: When the order is given, those cars may be switched two or three times out of those tracks or handled two or three times before they are ordered to go into the unloading dock.

[fol. 4811] Q. What did you mean by this sentence here?

A. They are switched more than once before being ordered. That is on the storage tracks themselves.

Q. Is that for the purpose of breaking out other cars?

A. That is right, breaking out other cars.

Q. On the previous page you say, "When a train arrives at the Hoboken Terminal the export cars are switched out of the train and placed on hold tracks until ordered."

Do you have special hold tracks for the export traffic?

A. Yes, we do.

Q. Do you make any attempt to segregate those cars for particular vessels?

A. We have no knowledge of particular vessels on any one of those cars. They are ordered by the brokers. There are several different brokers that have these cars, and they are ordered when they are wanted for a ship.

Q. Now, on any of these cars, are there any deliveries along side of the vessel in which the car is not unloaded on to the lighter?

A. That isn't clear to me.

Q. In which the car itself is transported to dockside or shipside?

Mr. Costello: Do you mean by a car float?

Mr. M. Miller: By a car float, yes.

The Witness: About 70 per cent of our cars are split [fol. 4812] deliveries. They go to more than one ship.

By Mr. M. Miller:

Q. So those all would be lightered?

A. Lightered eventually, yes.

Q. You don't have the car floatage type of delivery to the car?

A. We have the car float delivery, too.

Q. What proportion of your cars would be delivered by car floats?

A. A very small proportion, probably two per cent.

Q. If you were to deliver the contents of a car by switching a car to a dock, that is, an all-land movement, would the expenses of that operation be any more or less than this lighterage operation?

A. It would be more. We would have to check with another railroad.

Q. Do I understand that your statement deals only with the export shipments?

A. No. I think domestic is mentioned in there.

Q. I mean in relation to your export-import traffic, you don't go into the operations involved in handling your import traffic?

A. Yes, we do.

Q. I see, on page 3. Do you have this same switching problem on your import traffic that you do on the export traffic?

A. No, we do not.

Q. You load from the lighter direct into the car?

A. Direct into the car.

Q. Then it is handled more or less like a domestic shipment?

[fol. 4813] A. Yes, sir.

Mr. M. Miller: Those are all the questions I have.

Commr. Murphy: Mr. Burke, do you have a charge for those split deliveries?

The Witness: We don't have the choice, no, the brokers have the choice of it. The brokers issue orders to us. We have no choice in the matter.

Commr. Murphy: I understood you have a choice for a line split delivery.

The Witness: I don't quite understand you.

Mr. Daily: I think in connection with export freight, split delivery to the different steamship piers, I believe Witness Harris of the New York Central testified that you are permitted two split deliveries without additional charge.

The Witness: That is right.

Mr. Daily: You may request as many as five split deliver-

ies, but the last three you will pay for if you so request them.

Commr. Murphy: That is what I was wondering, if whether this was the same situation as on the New York Central?

The Witness: Yes, that is true.

Mr. Costello: I have no redirect, Mr. Commissioner.

Commr. Winchell: Are you offering the statement?

Mr. Daily: We offer W-48, sir.

Commr. Winchell: It will be received.

[fol. 4814]

Verified Statement No. W-45

Affiant: Oscar A. Frauson

Before The

INTERSTATE COMMERCE COMMISSION

Ex Parte No. 212

Increased Freight Rates, 1958

Verified Statement of

Oscar A. Frauson

Erie Railroad Company

C. Special and accessorial charges:

I. New charge on waterborne traffic. (Items 220 and 220-A).

[fol. 4815]

BEFORE THE

INTERSTATE COMMERCE COMMISSION

EX PARTE NO. 212

INCREASED FREIGHT RATES,
ON WATERBORNE TRAFFIC, 1958

STATEMENT OF

OSCAR A. FRAUSON

My name is Oscar A. Frauson and I am Superintendent of Lighterage and Stations, New York Harbor, for Erie Railroad Company with headquarters at 25 Broadway, New York City.

I have been employed by Erie for 47 years, including 10 years as Freight Agent at various freight stations and lighterage terminals in the New York Harbor territory and 28 years as Superintendent of Lighterage and Superintendent of Lighterage and Stations, New York harbor. In my present position, I have general charge of the lighterage operations and of freight stations and lighterage terminals of Erie Railroad Company in the New York Harbor area. For many years I have been Chairman of the Railroad Lighterage Committee of New York Harbor; also, a member of the Joint Railroad Steamship Committee of the Maritime Association of the Port of New York. These committees deal primarily with subjects, problems, and tariff rules involved in the freight and lighterage operations in this territory.

A greater service is performed in the handling of lighterage and carfloat service by New York Harbor Railroads on export, import, coastwise and intercoastal "lighterage free" freight than is performed on domestic "lighterage [fol. 4816] free" freight handled in lighterage or carfloat service to and from private or public docks within the lighterage limits.

For example, a carload of domestic lighterage freight, unless consignee requests delivery withheld, is handled

directly from the car into a lighter or barge and towed to point of delivery in the Harbor. In event consignee requests delivery to be withheld, 48 hours free time is allowed. On the other hand, export carload freight is allowed 7 days free time exclusive of Saturdays, Sundays and Holidays and exclusive of the date for which delivery is ordered. (Under our proposal this free time will be reduced from 7 days to 4 days.) During this holding period, the railroad must assume ownership or per diem expense while held in cars and must provide either open pier storage or other open storage space for so-called "open top" car freight or covered dock storage on box car freight. During this holding period, railroad assumes common carrier responsibility for the freight. Export freight cannot be delivered by the railroad until consignee tenders request for delivery accompanied by a steamship permit. In instances where various export lots are contained in a car of export freight, the railroad must unload and assort such lots according to port marks. This is necessary for the reason that consignee, on an export car can order two separate deliveries to separate steamship piers without additional charge—and can order three additional deliveries at a tariff charge for such 3rd, 4th and 5th delivery—these are generally described as "split delivery" cars. Frequently, on a "split delivery" car there is a considerable lapse of time between [fol. 4817] the first delivery and the last delivery ordered by a consignee. Such "split deliveries" are not accorded to domestic freight; a domestic car of lighterage freight will only be delivered to one single destination point in the Harbor.

Another very important difference in service accorded by the railroad on carload "lighterage free" freight is that on a domestic shipment the consignee must perform service of unloading the freight from the barge, lighter or cars on carfloat at destination point in the Harbor, or else pay the carrier a tariff unloading charge in the event carrier is requested to unload. On the other hand, on export, coastwise, or intercoastal freight delivered to a steamship pier, the railroad is obligated to perform the service of unloading the freight from the barge, lighter or cars on carfloat and move it to a location on the steamship pier within

100 feet of the string piece. In the event the steamship line determines to move the freight direct from the railroad marine unit, "over-the-side" of their vessel, then the railroad is obligated to assume handling of the freight involved from the location where it is stored on such railroad marine unit to a point on the railroad boat within reach of the ship's tackle.

After export freight has been delivered to a steamship line, the railroad must secure signature of steamship line representative on steamship documents, commonly termed dock receipts, and the railroad, after recording such receipts, must transmit them to the consignee or his representative. No such service is required in connection with domestic freight delivered in lighterage service.

[fol. 4818] On outbound (westbound) domestic "lighterage free" freight picked up by a railroad marine unit at public or private piers or landing places, the shipper must assume the operation of loading the freight at such shipping points to the railroad barge, lighter or cars on carfloat. In the event shipper desires the railroad to perform the loading of such freight to railroad marine units at such locations, a tariff loading charge is assessed against the shipper.

On outbound (westbound) "lighterage free" import, coastwise or intercoastal freight picked up by a railroad marine unit at a steamship pier, the operation of loading the railroad barge, lighter or cars on carfloat is performed by the railroad at railroad expense. The railroads are required to handle such freight from a location on the steamship pier up to 100 feet from the string piece and load it into or onto the barge, lighter or cars on carfloat.

After railroad marine units containing outbound (westbound) "lighterage free" freight are towed to the railroad lighterage terminal, the freight is loaded into cars by railroad forces. Such blocking and bracing of freight as is necessary to protect the shipment in or on cars is performed by railroad labor. When such blocking and bracing service is performed on domestic freight, tariff charges for material and services are assessed by the railroad against shipper or consignee; however, when blocking or bracing service is performed on import traffic, the cost of all block-

ing and bracing utilized and labor involved is assumed by the railroad.

The greater portion of "In Bond" freight handled by the railroads in New York consists of import and export shipments handled in lighterage service.

[fol. 4819] To meet Government requirements for handling this "In Bond" freight, railroads must obtain a Custom House License. Further, all railroad marine units utilized for handling "In Bond" freight, must have the Custom House License number painted conspicuously on each of the railroad boats involved. Inasmuch as any barge, lighter or carfloat, over a period of time will likely be used for transporting "In Bond" freight, this necessitates painting and repainting the Custom House License number on all boats in the fleet.

The loading, unloading and handling of "In Bond" freight at railroad lighterage terminals must be under the jurisdiction of a U. S. Customs Inspector. Their hours are 8:00 A.M. to 5:00 P.M., Monday to Friday inclusive. It is regularly necessary for railroads to handle freight at other hours, also on Saturdays, Sundays and Holidays, and the railroads assume the expense of such "overtime" work performed by U. S. Custom Inspector at Lighterage Terminals.

"In Bond" freight involves only import or export traffic; therefore, it would not be necessary for the railroads to obtain a Custom House License nor assume payments of any overtime to U. S. Custom Inspectors insofar as the handling of domestic freight is concerned.

[fol. 4820]

VERIFICATION

CITY OF NEW YORK)
) ss
COUNTY OF NEW YORK)

OSCAR A. FRAUSON, being duly sworn on oath deposes and says that he is the person who prepared or had prepared under his direction and supervision the foregoing statement; that he has read the same and that the statements therein contained are true and correct to the best of his knowledge, information and belief.

(Signed) OSCAR A. FRAUSON
Oscar A. Frauson

Subscribed in my presence
and sworn to before me by
the affiant above named this
8th day of April, 1958.

(Signed) GEORGE ANDREWS
George Andrews, Notary Public

George Andrews
Notary Public, State of NY
No. 31-5081800

My Commission expires March 30th, 1960. Qualified in New York County

SEAL

[fol. 4821]

Verified Statement No. W-47
Affiant: Peter J. Ellis

Before the
INTERSTATE COMMERCE COMMISSION

Ex Parte No. 212
Increased Freight Rates, 1958

Verified Statement of
Peter J. Ellis
Lehigh Valley Railroad Company

C. Special and accessorial charges:

I. New charge on waterborne traffic. (Items 220 and 220-A).

[fol. 4822]

BEFORE THE

INTERSTATE COMMERCE COMMISSION

EX PARTE NO. 212

INCREASED FREIGHT RATES, 1958

VERIFIED STATEMENT OF

PETER J. ELLIS

I am the Manager of Lighterage and Marine Service for the Lehigh Valley Railroad Company. I have been employed by that Company for the past 36 years and I am thoroughly familiar with the routine business, customs and practices of the Lehigh Valley Railroad regarding the handling of waterborne traffic in the Port of New York including export, import, coastwise and intercoastal as well as domestic traffic.

This statement will show that the Lehigh Valley Railroad performs a much greater service in handling export, import, coastwise or intercoastal lighterage-free traffic than in handling domestic lighterage or carfloat movements to and from private or public docks within the lighterage limits.

Generally speaking, domestic freight is unloaded promptly to barges and lighters in a direct car-to-boat operation unless directed by the consignee to be held for instructions. Only 48 hours free time is allowed on domestic traffic whereas 7 days free time (exclusive of Saturdays, Sundays and legal holidays) is now permitted on export traffic, and 4 days free time (subject to the same exclusions) is proposed in this proceeding. To accommodate export traffic, carriers are obliged to maintain holding yards and considerable connecting trackage and to assume added per diem expense while the freight remains in cars pending [fol. 4823] release to ground storage areas or covered piers. The handling of export traffic requires additional switching service, especially in connection with split delivery cargoes.

Under the present rules and regulations governing New York Harbor export traffic, a total of 5 deliveries from each carload lot is permissible, the first 2 at carriers' expense and the balance at the charges provided for in the tariff. Such an arrangement is not accorded domestic traffic, where only one delivery will be allowed to a single destination point within the confines of New York Harbor.

The consignee may elect to have one export delivery effected at the lighterage terminal in Jersey City and the balance of the carload reloaded to a lighter or car for delivery at one of the New York pier local stations. In this latter event, the carrier is obliged to reload and switch the car to the Float Bridge area where the car is then loaded to a carfloat which is towed by railroad tugs to the designated station. After arrival at the pier station, the carrier's labor is utilized to unload the car to the pier and check the contents of the car when unloaded. The carrier must issue another arrival notice, thus incurring a further expense, in addition to the expense of the double handling of the car at the New Jersey lighterage terminal. Such additional service is performed without added expense to the shipper or consignee of export freight.

[fol. 4824] In the case of domestic traffic, the consignee must unload the cargo from the barge, lighter, or carfloat or compensate the carrier for performing such service. On the other hand, where export, coastwise or intercoastal freight is delivered at the various steamship piers, the carrier must assume the expense of unloading to the steamship pier. In addition, where "over the side" delivery is effected direct from the railroad equipment to the steamer hatches, the carrier must move the cargo on the railroad equipment to within reach of the ship's tackle.

On export traffic delivered to the steamship piers, carriers deliver proper documentation for such cargo and obtain certified receipts which are returned to the shipper or forwarder after recording in carrier's records. This enables the principals to obtain clearances for letters of credit, ocean bills of lading, etc. Such service is not required with the handling of domestic traffic.

Westbound lighterage-free, import, coastwise or intercoastal traffic is loaded to railroad marine equipment at carrier's expense, whereas on westbound domestic lighterage traffic the shipper must assume the loading expense or, where he elects to have the carrier perform the service, pay the loading charges provided for in the tariff.

Domestic westbound freight, after being towed to the railroad lighterage terminal at Jersey City, is loaded into cars by the carrier's labor, but the cost of blocking or bracing to protect the lading to final destination is paid by the shipper as provided in the tariff. However, on im- [fol. 4825] port, coastwise or intercoastal westbound freight, the cost of blocking and bracing and the labor involved in protecting the lading while in transit is assumed by the carrier.

The Harbor Carriers in the Port of New York are obliged to obtain Custom House Licenses, which license numbers must be painted conspicuously on all their equipment, to permit the handling of "IN BOND" traffic, export or import, under U. S. Customs regulations. In addition, the carrier must assume the expense of U. S. Customs inspectors after 5:00 p.m. Monday to Friday, inclusive, and on Saturdays, Sundays and legal holidays for so-called overtime work at the lighterage terminals. Such expense is not incurred in handling domestic traffic.

[fol. 4826]

STATE OF NEW YORK)
) SS.:
COUNTY OF NEW YORK)

PETER J. ELLIS, being duly sworn, deposes and says that he is Manager of Lighterage and Marine Service of Lehigh Valley Railroad Company; that he personally prepared the foregoing statement and knows the contents thereof and that the same is true to the best of his knowledge and belief.

(Signed) PETER J. ELLIS
Peter J. Ellis

Subscribed and sworn to before me
this eighth day of April, 1958.

(Signed) LAWRENCE BERMAN

Lawrence Berman
Notary Public, State of New York
No. 31-5290885
Qualified in New York County
Commission Expires March 31, 1960

[fol. 4827]

I. & S. Docket 6615
Exhibit —— (EMT-5)
Witness Talbott.

Number of Lighters Towed Per Tug-Tows
Months of September—years 1948-1957 Inc.

Years	Number of Tows	Lighters Towed	Average Lighters Per Tow
1948	1418	2328	1.6
1949	1155	2059	1.8
1950	1126	1917	1.7
1951	1075	1742	1.6
1952	858	1479	1.7
1953	1177	1922	1.6
1954	1012	1635	1.6
1955	935	1495	1.6
1956	981	1478	1.5
1957	873	1321	1.5

[fol. 4828]

I. & S. Docket 6615
Exhibit —— (EMT-6)
Witness Talbott

Tons Lightered and Cars Floated
B&O-CNJ Marine Operation — Jersey City, N.J.
Years 1948-1957 Inc.

	Tons Lightered		
Year	Tons Lightered	Lighters Loaded and Unloaded	Tons Per Lighter
1948	881,106	10,772	81.8
1949	839,537	11,795	71.2
1950	764,992	11,698	65.4
1951	793,494	10,565	75.1
1952	831,170	11,178	74.4
1953	806,468	10,491	76.9
1954	695,499	8,744	79.5
1955	685,859	8,598	79.8
1956	673,211	7,874	85.5
1957	641,629	7,127	90.0
Average 10 years	761,297	9,884	77.0

*****

Cars Floated

Year	Cars Floated	Serviceable Car Float Days	Cars Floated Per Serviceable Car Float Day
1948	104,984	12,409	8.5
1949	87,831	12,866	6.8
1950	93,414	11,730	8.0
1951	93,834	11,090	8.5
1952	87,130	10,351	8.4
1953	86,791	9,896	8.8
1954	87,503	9,523	9.2
1955	95,834	9,511	10.1
1956	102,779	10,809	9.5
1957	103,893	11,964	8.7
Average 10 years	94,399	11,015	8.6

[fol. 4829]

I. & S. Docket No. 6615
Exhibit —— (EMT-7)
Witness Talbott

Baltimore and Ohio Traffic Covered By The Lighterage Pier And/Or Marine Service Portion of the Terminal Cost Study at New York.

	September 1956
Lightered in B&O-CNJ pooled marine service	11,647 tons
Trucked in lieu of lighterage	6,821 "
Lightered by contract steam lighter	1,598 "
Floated	189 "
	20,255 tons

[fol. 4830]

I. & S. Docket No. 6615
Exhibit —— (EMT-8)
Witness Talbott

Import-Export Traffic Through The Port of New York Via the B&O & CNJ For the Year 1956 and a Comparison of September 1956 With The Monthly Average For the Year.

Total Traffic (traffic study):			
B&O		318,145 tons	
CNJ		581,333 "	
	Total	899,478 "	(Tr. 1548)
Less: Traffic moving through:			
Port Newark	25,403 tons		
Earle, N.J.	54,189 "		
Carteret, NJ	12,478 "		
		92,070 tons	
		807,408 tons	
Average per month excluding the Port Newark, Earle and Carteret tonnage			67,284 tons
For September 1956:			
Total lightered, floated and trucked in lieu of lighterage B&O-CNJ (Cost study, working papers p. 1).		43,001 tons	
Less: Domestic traffic included for the purpose of determining unit costs		7,152 "	
			35,849 tons
Export scrap iron	(Tr. 1552)		14,288 "
Import ore	(Tr. 1552)		13,743 "
Total import-export traffic			63,880 "

[fol. 4831]

I. & S. Docket No. 6615
Exhibit —— (EMT-9)
Witness Talbott

Computation of Adjustment to Relate Certain Marine Expenses at New York For the Month of September 1956 to the Monthly Average for 1956 Based On Comparative Traffic Volumes As Described

	Sept. 1956	Year 1956
Tons lightered in B&O-CNJ pooled marine operation:		
Via Jersey City and St. George lighterage piers	31,749	437,653
Via Manhattan pier stations	692	8,717
Via American Docks S.I.	258	6,092
Via Jersey City—domestic bulk cement	23,705	266,146
	56,404	718,608
Average month		59,884
Indicated adjustment in costs not directly variable with traffic to relate September 1956 to the 1956 monthly average. (59,884 — 56,404 = 3,480 then 3,480 ÷ 59,884)		5.81%

[fol. 4832]

I. & S. Docket No. 6615
Exhibit —— (EMT-10)
Witness Talbott

Computation of Adjustment To Relate Certain Lighterage Pier Expenses For September 1956 to the Monthly Average for 1956, Based On A Comparison of Traffic Volume As Described

	Tons	
	Sept. 1956	Year 1956
Traffic moved to or from the lighterage piers at Jersey City and St. George, S. I., via:		
B&O pooled marine operation	31,749	437,653
Trucking in lieu of lighterage	7,064	90,261
Lightered by contract steam lighter	1,598	18,210
TOTAL	40,411	546,124
Average per month		45,510
Indicated adjustment in costs not directly variable with traffic to relate September to the 1956 monthly average. (45,510 — 40,411 = 5,099 then 5,099 ÷ 45,510)		11.20%

[fol. 4833]

I. & S. Docket 6615
Exhibit —— (EMT-11)
Witness Talbott

IMPORT EXPORT TRAFFIC THROUGH THE PORT OF NEW YORK VIA PENNSYLVANIA RAILROAD SYSTEM FOR THE YEAR 1956 AND A COMPARISON OF SEPTEMBER, 1956 WITH THE MONTHLY AVERAGE FOR THE YEAR

(Tons of 2,000 pounds).

Total Traffic (Traffic Study):		1,399,852 tons
Less: Traffic moving through		
Port Newark, N.J.	10,373 tons	
Bayonne, Earle, N.J. and Hoboken Shore RR stations	62,118 "	
Stations on Long Island	29,552 "	
TrucTrain	2,295 "	
		104,338 tons
		1,295,514 tons
Average per month, excluding Port Newark, North Jersey and Long Island Stations and TrucTrain		107,959.6 tons
For September, 1956:		
Total lightered, floated and trucked in lieu of lighterage used in cost study.		103,346.5 tons

[fol. 4834]

I. & S. Docket 6615
Exhibit —— (EMT-12)
Witness Talbott

NEW YORK CENTRAL SYSTEM

A. E. PERLMAN
PRESIDENT

New York, N. Y.
July 2, 1958

Memorandum to: The Honorable Robert F. Wagner
Mayor, The City of New York

From: Alfred E. Perlman
President, New York Central System

This memorandum will summarize the points discussed by you and me and by our respective associates during the last several months:

Events of the past few months have brought into focus more sharply the urgent need in the public interest for maintaining efficient and financially sound railroad transportation facilities. This has reflected itself in the surveys and reports of the Metropolitan Rapid Transit Commission, in public hearings before Committees of both houses of Congress, and in a wide variety of other significant public actions. More than ever, the people of our nation are becoming aware of the fact that rail transportation is vital to the defense and economic strength of our country.

The City of New York and the New York Central System have a common interest and mutual desire in providing efficient rail transportation within the city and this region. Indeed, in your additional function as Chairman of the Regional Mayor's Conference, you have placed transportation high on the agenda of that group. The community [fol. 4835] of interest between the City of New York and the New York Central System can be demonstrated in many ways: the taxes paid to the City by the New York Central Railroad; the railroad's huge staff of employees; the services it renders to industry and to commuters.

In 1957 alone the New York Central, as the city's third largest taxpayer, paid to the City of New York $16,066,241, representing $15,670,853 in real estate and special franchise taxes, and $395,388 in sales and gross receipt taxes. In the New York district of the railroad we employ 14,500 persons with an annual payroll of $85,000,000. This, in turn, represents a substantial amount of purchasing power for the other businesses and industries which sustain the city. The freight services provided by the Central to industry within the City of New York include the only direct service by rail, as well as a lighterage service which enhances New York harbor. (Incidentally, as you know, both of these operate at substantial losses; in 1957 the loss on our freight service to Manhattan Island was $10,350,000.)

Part of the mutual interest mentioned above was given recognition recently when the New York State Legislature requested the New York State Public Service Commission to undertake a broad study of the impact of local taxation upon the economy of rail transportation throughout the state.

Another phase of this mutual interest is of more immediate concern to the people of the City of New York. [fol. 4836] This involves the possibility of integrating our Park Avenue Tunnel between 96th Street and Grand Central with present rapid transit subway operations. There have been a number of recommendations in recent years in connection with construction of a new subway for the City of New York on Second Avenue, Madison Avenue and other north-south arteries, all of which involve expenditures of huge sums of money. We believe it highly possible that the Park Avenue Tunnel could readily be adapted to rapid transit use as part of the City's system operated by the Transit Authority.

We feel that if the City is not to be stifled in its continued growth, that some equitable plan must be consummated to relieve the New York Central and other railroads of the crushing burden of subsidizing rail transportation into Manhattan.

It is against this background and in the light of our joint interest here that I am writing this letter to suggest that,

in effect, we become partners in the public interest and request that you designate a committee of appropriate city officials to meet with us to explore fully plans for providing healthy transportation facilities for the people in this area. We suggest that such a committee can serve a significant purpose, not only in planning for better transit facilities for the people of this City and the surrounding communities, but could serve in addition as a useful link between the City and the Public Service Commission in the surveys it will undertake pursuant to the direction it has received from the Governor and the legislative leaders.

[fol. 4837] We are prepared to meet with such committee as you may designate and to make available to the committee all of our engineering and other resources. We believe that a constructive plan can be developed which will be of benefit to all concerned.

Alfred E. Perlman

[fol. 4838]

I.C.C. Exhibit No. 126

COPY

NEW YORK CENTRAL SYSTEM

February 20, 1958

Mr. J. L. Heywood, Assistant Comptroller
The Pennsylvania Railroad Company
1244 Transportation Center
Six Penn Center Plaza
Philadelphia, Pa.

Subject: I.&S.Docket No. 6615,
Equalization of Rates
at North Atlantic Ports

Dear Mr. Heywood:

Will you kindly arrange to furnish me the working papers which were used in the modification of your Exhibits JLH-1 & 2 (revised) to the out-of-pocket costs contained in your Exhibits JLH-3 & 4, which were distributed to the parties in this proceeding on February 19, 1958.

It was contemplated that certain data would be developed in cross-examination, however, it now appears that much time will be saved all concerned if, along with the working papers requested above, you also furnish the information detailed below which is basic to all of your exhibits.

For The Pennsylvania Railroad
Yard Costs (New York area)

1. Total number of cars and total engine minutes shown in the one-week yard study (Sept. 25 to Oct. 1, 1956) separately, for each element of switching service, i.e., classification, transfer, etc. Include all traffic handled during the one-week test period.

2. Furnish for each month of 1956, the total loaded and empty cars into each yard; out of each yard; and handled

within each yard covered in the one-week yard study. This information to be obtained from current yard records to the extent available.

Float Bridge Costs (New York)

1. Furnish for each month in the Year 1956, for Harsimus Cove float bridge: (a) Number of cars-export-import; (b) number of cars-domestic freight; and (c) all other.

2. Furnish for (a) and (b) above, separately, the number of cars handled account of: (a) Desbrosses Street; (b) West 12th Street; (c) Greenville Piers; (d) Jersey City Piers; and (e) all other.

Marine Cost (New York)

1. Furnish for each month in the Year 1956, separately:
   (a) Number of cars Export-Import
   (b) Number of cars Domestic Freight
   (c) All Other

[fol. 4839] 2. Furnish for (a) and (b) above, separately, the number of cars handled account of:
   (a) Desbrosses Street
   (b) West 12th Street
   (c) Greenville Piers
   (d) Jersey City Piers
   (e) All Other

Station Costs (New York)

1. Furnish the cars and tons for each month in the Year 1956, separately for:
   (a) Desbrosses Street
   (b) West 12th Street
   (c) Greenville Piers
   (d) Jersey City Piers
   (e) All Other

2. Separate the cars and tons shown in (a) to (e) above, among:

(a) Export-Import Traffic
(b) Domestic Traffic
(c) All Other

3. Separate the export-import traffic for each station, among:

(a) Handled by trucks to or from steamship piers
(b) Handled by car float
(c) Handled by other means (describe)

For the B.&O., S.I.R.T., & C.N.J.

1. Marine expense cost operation file referred to at page 17 of study.

2. C.N.J. file 102-2 referred to at page 18 of study and work paper file Jersey City, referred to at page 18 of study.

3. File 102-2 referred to at pages 21, 22, 24, 39, and 42 of study.

4. St. George working file referred to at page 40 of study.

5. A textual explanation together with the working papers for 'all other' cost for which no sources are shown.

6. A textual explanation of how the costs were aggregated to produce the unit cost shown on J. L. Heywood's working papers, sheets D-1 and D-2.

[fol. 4840] If it is impractical to furnish the working papers mentioned above it is suggested that they be made available to the complainant railroads at one centrally located office. It is suggested that the C.N.J. offices in Jersey City, N.J., be selected since it appears that many of the files are already at that location.

Yours very truly,

Assistant General Solicitor

JHC:t

Cc: Messrs. H. D. McCoy, Sec'y., I.C.C.
Marion Boat, Examiner, I.C.C.

[fol. 4841]

I.C.C. Exhibit No. 127

COPY

February 26, 1958

1138 Transportation Center
Six Penn Center Plaza
Philadelphia 4, Penna.

Re: I.&S. 6615, Equalization of Rates at North Atlantic Ports.

John H. Colgren, Esq.
Assistant General Solicitor
New York Central System
466 Lexington Avenue
New York 17, N.Y.

Dear Mr. Colgren:

You will find enclosed copies of the working papers used in connection with Exhibits JLH-3&4 in the above proceeding, which you requested in your letter to Mr. Heywood, dated February 20, 1958. The remainder of your request is under consideration and we will advise you shortly regarding our position in that respect.

Very truly yours,

Richard R. Bongartz
General Attorney

RRB:meh
cc: Messrs. H. D. McCoy, Sec'y., I.C.C.
Marion Boat, Examiner, I.C.C.
—Together with copies of the working papers referred to above.

R.R.B.

[fol. 4842]

I.C.C. EXHIBIT No. 128

COPY

February 28, 1958

1138 Transportation Center
Six Penn Center Plaza
Philadelphia 4, Penna.

Re: I.&S. 6615—Equalization of Rates at North Atlantic Ports.

John H. Colgren, Esq.
Assistant General Solicitor
New York Central System
466 Lexington Avenue
New York 17, N.Y.

Dear Mr. Colgren:

This will have further reference to your letter of February 20, 1958 to Mr. Heywood in the above proceeding, pursuant to which I mailed to you on February 26 copies of Mr. Heywood's working papers in connection with his exhibits (JLH-3) and (JLH-4).

The material requested in your letter, at page 2, for the Baltimore and Ohio, Staten Island, and Jersey Central, Items 1-6, will be made available to you at the office of Mr. Talbott, Assistant Comptroller, Baltimore and Ohio Railroad Company, Baltimore, Maryland, any time after the first week in March. The reason why the first week of March is not possible is that the B.&O.'s entire cost staff is preoccupied with pending litigation and will be out of town. I would suggest that your cost people communicate with Mr. Talbott's office as to when they intend to inspect such material. The B.&O. will be glad to provide any textual explanations under Items 5 and 6 if after examining the working papers your cost people still feel them to be necessary.

In your letter you suggested Jersey City as a place where the B.&O. material might be examined, but I understand that in your telephone conversation with Mr. Langdon, Baltimore was regarded as equally convenient for you. That is where the B.&O. material is presently located.

Regarding the additional information requested by you [fol. 4843] from the Pennsylvania Railroad, the information in Item 1 (yard costs) is available, but it requires explanation to understand its significance. As for the remaining items, Mr. Heywood is presently undertaking to have determined the availability of such information, and to the extent that it is not available in the form requested, what other information is available on the subject. Mr. Heywood will be engaged next week at hearings in the Transcontinental Divisions case, but he expects that he will be in a position to discuss these items with your people upon his return to his office on March 10, 1958. In this circumstance, we suggest that your cost people arrange a meeting with Mr. Heywood for that week, at which time all of the subject items can be discussed, including Item 1 (yard costs).

Very truly yours,

Richard R. Bongartz
General Attorney

RRB:meh
cc: Messrs. H. D. McCoy, Sec'y., I.C.C.
Marion Boat, Examiner, I.C.C.

[fol. 4844]

I.C.C. Exhibit No. 129

1244 Transportation Center
Six Penn Center Plaza
Philadelphia 4, Pa.
March 19, 1958

Re: I & S Docket 6615—Equalization of Rates, North Atlantic Ports

Mr. Wesley F. French
Manager, Costs and Controls
New York Central System
New York 17, N.Y.

Dear Wesley:

This will confirm our telephone conversation of March 14, relative to Mr. Colgren's letter to me of February 20, 1958, in which I furnished you with the following information:

	September 1956	Year 1956
1. Yard-Cars Handled	238,418	3,016,400

Switching Study in New York Area

Elements of Service	Number of Movements	Locomotive Minutes
Classification	31,235	247,592
Transfer Service	11,496	30,810
Handling Cars at Connections	3,069	7,682
Weighing Cars	536	2,185
Icing Freight Cars	359	1,576
Switching Company Coal Docks, etc.	14	165
Switching Shop Tracks	817	4,155
Passenger Work	60	2,060
Freight House Switching	1,096	4,767
Team Track Switching	1,702	10,626
Industrial Switching	18,740	70,358
Cleaning Cars	169	576
Other Service	—	4,506
Total	—	414,058
Non-Productive Time	—	26,194
Grand Total	—	440,252

2. Float Bridge-Harsimus Cove		
Floats	1,592	20,167
Cars	16,679	211,837

[fol. 4845]

	September 1956	Year 1956
3. Stations		
Desbrosses Street		
Foreign Traffic		
*Trucking in lieu of Lighterage		
Cars	362	5,313
Tons	10,549	148,876
Domestic Freight		
Cars	883	8,695
Tons	7,446	75,494
West 12th Street		
Foreign Traffic		
*Trucking in lieu of Lighterage		
Cars	74	1,025
Tons	1,376	17,210
Domestic Freight		
Cars	1,974	24,866
Tons	16,674	203,989
Lighterage Piers		
Foreign Traffc		
Lighters—Tons	68,853	817,426
Car Floats—Tons	1,697	40,705
Trucking in lieu of Lighterage—Tons	2,432	30,107
Total Foreign Traffic—Tons	72,982	888,238
Domestic Traffic—Tons	12,807	154,710
All Others		
Foreign Traffic		
TrucTrain—Tons	122	2,192
Driveaways—Tons	—	552
Domestic Traffic		
Cars	3,871	49,773
Tons	34,193	521,924

* Freight is car floated between Jersey City Railhead and Stations on Manhattan Island and trucked between these stations and the steamship piers.

As I explained to you in our telephone conversation the above information, which was given to you pursuant to Mr. Colgren's request generally is not the basis for my study. The basis for the study is set forth in the workpapers which were given to you. Furthermore, to the extent that the information contained herein is not separated as between Foreign and Domestic traffic and does not include anything applicable to the heading "Marine Costs" in Mr. Colgren's letter of February 20, it is because such information is not available in our records.

Yours truly

J. L. Heywood
Asst. Comptroller

Copy to:

Marion L. Boat, Esq.
Examiner, I.C.C.

Mr. John L. Colgren

[fol. 4846]

I.C.C. EXHIBIT No. 130

COPY

April 7, 1958

1138 Transportation Center
Six Penn Center Plaza
Philadelphia 4, Penna.

Re: Equalization of Rates at North Atlantic Ports—
I&S 6615.

John H. Colgren, Esq.
Assistant General Solicitor
The New York Central Railroad Company
466 Lexington Avenue
New York 17, New York

Dear John:

Enclosed is a sample of the cards that were filled out by the engine crews in connection with Mr. Clark's switching study. I also enclose two sample sheets used in tracing the import/export cars through the yards. One sheet applies to export and the other to import. This information is in response to your request made at page 1518 of the Record in the above-captioned case.

Very truly yours,

Richard R. Bongartz
General Attorney

Enc.

cc: Examiner Marion Boat

PENNSYLVANIA RAILROAD

REPORT OF YARD CREW OPERATIONS

Crew No.. No. 1-B

Date 9/24 19 56

Eng. Nos. 9239 From 10 57 M to 6 57 M

Station (or City) JERSEY CITY Yard HARSIMUS COVE Eng. Nos. (Inc. all Units) From M to M

Conductor W. J. TOWLE On Duty 10 57 M Off Duty 6 57 M No. Regular Brakemen 2

Engineman R. C. RUSSELL On Duty 10 57 M Off Duty 6 57 M Utility Brak'm From M to M

1 CLASSIFICATION—Making up and breaking up freight trains and yard cuts.

	Time From	Time To	Cars classified Loads	Cars classified Empties (MINUTES)
H-COVE (NEW YARD)	12:30 AM	12:50 AM		30
H-COVE (STOCK YARD)	1:35 AM	1:55 AM		20
H-COVE (J & STOCK YD)	4:26 AM	5:30 AM		65
H-COVE (ELEVATION)	5:50 AM	6:00 AM	14	10
	M	M		125
	M	M		

2 TRANSFER SERVICE—Handling cars from one yard, industry, interchange track, etc., to another yard, industry, interchange track, etc. or any combination of these facilities. (USE OTHER SIDE).

3 HANDLING CARS AT CONNECTIONS

Name of Road	Time From	Time To	Cars interchanged Loads	Cars interchanged Empties
	M	M		
	M	M		
	M	M		
	M	M		
	M	M		
	M	M		
	M	M		

4 WEIGHING CARS (Show where weighed)

Time From	Time To	Cars weighed Loads	Cars weighed Empties
	M	M	
	M	M	
	M	M	

5 ICING FREIGHT CARS

Time From	Time To	Cars iced Loads	Cars iced Empties
M	M		
M	M		
M	M		

6 SWITCHING COMPANY COAL DOCKS, ASH PITS, FUEL OIL TRACKS

Time From	Time To	Cars handled Loads	Cars handled Empties
M	M		
M	M		

7 SWG. SHOP, REPAIR AND STORES DEPT TRACKS

M	M		
M	M		

8 WORK FOR M. of W. DEPARTMENT

M	M		
M	M		

9 ALL PASSENGER WORK

M	M		
M	M		
M	M		

10 FREIGHT HOUSE SWITCHING

Name of freight house team track or industry	Time From	Time To	CARS HANDLED To Loads	To Empties	From Loads	From Empties	INTRA-PLANT From	INTRA-PLANT To	INTRA-PLANT Loads	INTRA-PLANT Empties
	M	M						M		
	M	M						M		
	M	M						M		

11 TEAM TRACK SWITCHING

	M	M						M		
	M	M						M		
	M	M						M		
	M	M						M		

12 INDUSTRIAL SWITCHING (Includes such items as private industries, docks, wharves, float bridges, trestles, elevators, and stock yards.)

		Time From	Time To	To Loads	To Empties	From Loads	From Empties	INTRA-PLANT From	INTRA-PLANT To	INTRA-PLANT Loads	INTRA-PLANT Empties
6 BRIDGE	H-COVE	10:57 AM	11:55 AM	0	10			50	M	M	
7 BRIDGE	H-COVE	11:55 AM	12:20 AM			0	1	20	M	M	
7 BRIDGE	H-COVE	12:50 AM	1:10 AM	5	5			20	M	M	
5 BRIDGE	H-COVE	1:10 AM	1:35 AM			10	0	20	M	M	
6 BRIDGE	H-COVE	1:55 AM	2:10 AM	0	10			15	M	M	
6 BRIDGE	H-COVE	2:10 AM	2:45 AM			10	0	30	M	M	
6 BRIDGE	H-COVE	2:45 AM	3:10 AM	0	10			25	M	M	
7 BRIDGE	H-COVE	3:10 AM	3:30 AM			9	0	20	M	M	
7 BRIDGE	H-COVE	3:30 AM	4:10 AM	0	10			40	M	M	
5 BRIDGE	H-COVE	4:10 AM	4:25 AM			8	2	15	M	M	
6 BRIDGE	H-COVE	6:00 AM	6:10 AM	9	1			10	M	M	
5 BRIDGE	H-COVE	6:10 AM	6:50 AM	5	1			49	M	M	
								336			

WAGES: Engine Crew Train Crew Utility Brakeman

Loco. Miles Loco. Ton Miles (100%) Loco. Ton Miles (Equated)

4847

[fol. 4847]

3637

2 TRANSFER SERVICE

FROM (Show name yard, industry, interchange track, etc.)	Time	TO (Show name yard, industry, interchange track, etc.)	Time	Cars Handled	
				Loads	Empties
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		

13 NON-PRODUCTIVE TIME

DESCRIPTION	From	To	DESCRIPTION	From	To
LUNCH PERIOD	5:30 PM	5:50 PM	NIL	M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M

14 OTHER SERVICES

DESCRIPTION	From	To	DESCRIPTION	From	To
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M

INSTRUCTIONS
(See "Memorandum of Instructions" on separately prepared statement)

4848

3638 [fol. 4848]

PENNSYLVANIA RAILROAD

REPORT OF YARD CREW OPERATIONS

No. D-3 1st 1000

Crew No. ____ Date 9/24 1956

Eng. Nos. 9275 From 1059 M to 6599 M

Station (or City) JERSEY CITY Yard H COVE Eng. Nos. ____ From ____ M to ____ M (Inc. all Units)

Conductor A. CINOTI On Duty ____ M Off Duty ____ M No. Regular Brakemen 2

Engineman E H VERNON On Duty 1059 M Off Duty 6559 (4100) M Utility Brak'm ____ From ____ M to ____ M

1 CLASSIFICATION— Making up and breaking up freight trains and yard cuts.

Name of Yard	Time From	Time To	Cars classified Loads	Cars classified Empties
H. COVE	1059 M	1132 M		31
	M	M		
	M	M		
	M	M		
	M	M		
	M	M		

2 TRANSFER SERVICE— Handling cars from one yard, industry, interchange track, etc., to another yard, industry, interchange track, etc. or any combination of these facilities. (USE OTHER SIDE)

3 HANDLING CARS AT CONNECTIONS

Name of Road	Time From	Time To	Cars interchanged Loads	Cars interchanged Empties
	M	M		
	M	M		
	M	M		
	M	M		
	M	M		
	M	M		
	M	M		

4 WEIGHING CARS (Show where weighed)

	Time From	Time To	Cars weighed Loads	Cars weighed Empties
LFD	M	M		
	M	M		
	M	M		

5 ICING FREIGHT CARS

Time From	Time To	Cars iced Loads	Cars iced Empties
M	M		
M	M		
M	M		

6 SWITCHING COMPANY COAL DOCKS, ASH PITS, FUEL OIL TRACKS

Time From	Time To	Cars handled Loads	Cars handled Empties
M	M		
M	M		

7 SWG. SHOP, REPAIR AND STORES DEP'T TRACKS

M	M		
M	M		

8 WORK FOR M. of W. DEPARTMENT

M	M		
M	M		

9 ALL PASSENGER WORK

M	M		
M	M		
M	M		

CARS HANDLED

	Name of freight house team track or industry	Time From	Time To	To Loads	To Empties	From Loads	From Empties	INTRA-PLANT From	INTRA-PLANT To	INTRA-PLANT Loads	INTRA-PLANT Empties
10 FREIGHT HOUSE SWITCHING		M	M								
		M	M								
		M	M								
11 TEAM TRACK SWITCHING		M	M					M	M		
		M	M					M	M		
		M	M					M	M		
		M	M					M	M		
12 INDUSTRIAL SWITCHING (Includes such items as private industries, docks, wharves, float bridges, trestles, elevators, and stock yards.)	J.C. PIERS	1129 M	1150 M	2				20	M	M	
	J.C. PIERS	1150 M	1204 M			2	16	90	M	M	
	J.C. PIERS	1204 M	315 M			1	14	113	M		
	J.C. PIERS	315 PM	340 PM	10				25	M	IDLD	
	J.C. PIERS	1108 PM	5208 PM	30				40	M	M	
	J.C. PIERS	5208 PM	659 PM	1	1		9	99	M	M	
								424	M	M	
		M	M						M	M	
		M	M						M	M	
		M	M						M	M	
		M	M						M	M	
		M	M						M	M	
		M	M						M	M	

WAGES: Engine Crew ____ Train Crew ____ Utility Brakeman ____ 4549

Loco. Miles ____ Loco. Ton Miles ____ (100%) Loco. Ton Miles ____ (Equated)

[fol. 4849]

3639

12 TRANSFER SERVICE

FROM (Show name yard, industry, interchange track, etc.)	Time	TO (Show name yard, industry, interchange track, etc.)	Time	Cars Handled	
				Loads	Empties
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		
	M		M		

13 NON-PRODUCTIVE TIME

DESCRIPTION	From	To	DESCRIPTION	From	To
LUNCH PERIOD	3401 M	401 M	20 MIN	M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M

14 OTHER SERVICES

DESCRIPTION	From	To	DESCRIPTION	From	To
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M
	M	M		M	M

INSTRUCTIONS

(See "Memorandum of Instructions" on separately prepared statement)

4850

(See opposite) ☞



Elements Of Service Accorded Care Of Export Freight From Differential Territory In The Port of NEW YORK (Jersey City)

Week Of Sept. 25 - Oct. 1, 1956

	Arrived In Port Area Time (2)	Date (3)	Train (4)	Unloaded Time (5)	Date (6)	LOADED CAR From Conn. At (7)	Date (8)	Classified At (9)	Transfer To (Either Direction) (10)	(11)	(12)	Weighed At (13)	Shopped at or Iced at (14)	Placement at (15)	Removal From (16)	Disposition of Empty Car Transfer To (17)	(18)	Classified at (19)	(20)	Loaded or Empty Other Service (Specify) (21)
32	9[10] PM	9/24/56	Hook mys 4770 9[10] 9/24	12[30] PM	9/28 10/1	—	—	Hackensack Cove	—	—	—	—	—	Piel L	Piel L Empty 9/27	—	—	Hackensack Cove		Placed on Float Bridge, empty
R		Minutes Per Car						13.3 10.3						6.3 3.9	6.3 3.9			13.3 10.3		
79	10[20] PM	9/25/56	Mead. mys 4770 6.45 9/25	1[00] PM	9/27/56	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove	—	—	—	—	Piel K.	Piel K Empty 9/27	—	—	Hackensack Cove		Placed on Float 65 Bridge 3 empty
B		Minutes Per Car						14.9 9.0 13.3 10.3	2.2 1.2					6.3 3.9	6.3 3.9			13.3 10.3		
81	1[30] PM	9/25	Mead Port 4771 6.20a 9/25	9[00] PM	9/27	—	—	Hackensack Cove	Meadows Hackensack Cove	—	—	—	—	Piel K	Piel K Empty 9/26	—	—	Hackensack Cove		Placed on Float 567 Bridge 9 empty
B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9	6.3 3.9			13.3 10.3		
1E 78	10[20] PM	9/25	Pg 10 4996 7 9/24	10[35] PM	10/4			Waverly Meadows Hlcve	to Meadows to Hlcve			—	—	Piel H	Piel H Empty 10/5	Hackensack Cove to Meadows		Hackensack Cove Meadows		—
B		Minutes Per Car						14.9 10.3 13.3 10.3	2.8 1.8					6.3 3.9	6.3 3.9	13.3 2.1		13.3 10.3 14.9 9.0		
F 946	10 PM	9/25	Mead mys 4770 6.45 9/25	5[15] PM	9/27	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove	—	—	—	—	Piel K	Piel K Empty 9/27	—	—	Hackensack Cove		Placed on float Bridge 3, empty
B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9	6.3 3.9			13.3 10.3		
383	3[00] PM	9/25	Mead Port 4771 6.20a 9/25	9[45] PM	9/27	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove	—	—	—	—	Piel K	Piel K Empty 9/26	—	—	Hackensack Cove		Placed on Float Bridge 9 empty
B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8		✓			6.3 3.9	6.3 3.9			13.3 10.3		
F 428	1[30] P	9/25	Mead Port 4771 6.20a 9/25	2[45] P	9/30	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove			—	—	Piel K	—	—	—	—	—	Reloaded Piel Railway NJ
B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9						
L 472	1[30] P	9/25	Mead Port 4771 6.20a 9/25	8[00] P	9/28	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove			—	—	Piel K	—	—	—	—	—	Reloaded Piel Meadow NJ
B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9						
IC 7794	1[30] P	9/25	Mead Port 4771 6.20a 9/25	8[45] P	9/28	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove			—	—	Piel K	—	—	—	—	—	Reloaded Piel Hodkes Barge NJ
								14.9 9.0	2.8 1.8					6.3 3.9						

Elements Of Service Accorded Cars Of Export Freight From Differential Territory In The Port of NEW YORK (Jersey City) 3641 [fol. 4851]

Week Of Sept. 25 - Oct. 1, 1938

Area / Train (4)	Unloaded Time (5)	Unloaded Date (6)	LOADED CAR: From Conn. At (7)	From Conn. Date (8)	Classified at (9)	Transfer To (Either Direction) (10)	(11)	(12)	Weighed At (13)	Shopped at or Iced at (14)	Placement at (15)	Removal From (16)	Disposition of Empty Car: Transfer To (17)	(18)	Classified at (19)	(20)	Loaded or Empty Other Service (Specify) (21)	Total Minutes (22)
Hook Mg 8 W90 9 0 10 2	12 35 PM	9/27 10/1	—	—	Hackensack Cove	—	—	—	—	—	Piel L	Piel L Empty 9/27	—	—	Hackensack Cove		Placed on Float Bridge, empty	567 938
Per Car					13.3 10.3						6.3 3.9	6.3 3.9			13.3	10.3	—	
Mead. Mgt W772 6.4	10 PM	9/27/38	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove	—	—	—	—	Piel R.	Piel R Empty 9/27	—	—	Hackensack Cove		Placed on Float 663 Bridge 3, empty	9/27
Per Car					14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9	6.3 3.9			13.3	10.3		
Mead Prot 4771 620a	9 00 PM	9/27	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove	—	—	—	—	Piel R	Piel R Empty 9/28	—	—	Hackensack Cove		Placed on Float 567 Bridge 9 empty	10/1
Per Car					14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9	6.3 3.9			13.3	10.3		
Pj10 4004	10 35 AM	10/4			Meadows Hackensack Cove	Meadows to Hackensack Cove		—	—	—	Piel H	Piel H Empty 10/5	Hackensack Cove to Meadows		Hackensack Cove Meadows		—	—
Per Car					14.9 10.0 13.3 10.3	2.8 1.8 2.8 1.8					6.3 3.9	6.3 3.9	15.3	2.1	13.3 14.9	10.3 9.0		
Mead Mgt 4770 84	5 15 PM	9/27	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove	—	—	—	—	Piel R	Piel R Empty 9/27	—	—	Hackensack Cove		Placed on float 663 Bridge 3, empty	9/27
Per Car					14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9	6.3 3.9			13.3	10.3		
Mead Prot 4771 620a	9 45 PM	9/27	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove	—	—	—	—	Piel R	Piel R Empty 9/28	—	—	Hackensack Cove		Placed on float 663 Bridge 9, empty	10/4
Per Car					14.9 9.0 13.3 10.3	2.8 1.8			✓		6.3 3.9	6.3 3.9			13.3	10.3		
Mead Prot 4771 620a	2 45 P	9/30	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove				—	Piel R	—	—	—	—	—	Reloaded Piel R to Rahway 7J	9/29
Per Car					14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9							
Mead Prot 4771 620a	8 50 P	9/28	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove				—	Piel K	—	—	—	—	—	Reloaded Piel K Mead K 7J	9/29
Per Car					14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9							
Mead Prot 4771 620a	8 45 P	9/28	—	—	Meadows Hackensack Cove	Meadows Hackensack Cove				—	Piel K	—	—	—	—	—	Reloaded Piel K to Wilkes Barre Pa	10/1
Per Car					14.9 9.0 13.3 10.3	2.8 1.8					6.3 3.9							
Mead			—	—	Meadows	Meadows	—	—	—	—	Piel R	Piel R Empty	—	—	Hackensack		Reloaded Piel R to	

	104479	10 Pm	9/25	4770 6.4	1 Pm	9/27			Hauseman	Meadows					Empty 9/27					Average of
	B		Minutes Per Car						14.9 9.0 13.3 10.3	2.2 1.8				6.3 3.9	6.3 3.9			13.3 10.3		
	WM 27481	1 30 Pm	9/25	Mead Fast 4771 620a	9 00 Pm	9/27	—	—	Meadows Hauseman Cove	Meadows Hauseman Cove	—	—	—	Piel K	Piel K Empty 9/28	—	—	Hauseman Cove		Placed on Bridge 9
	B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9	6.3 3.9			13.3 10.3		
	ERIE 14578	10 Pm	9/25	Pyio 4991	10 35 Pm	10/4			Warren Meadows Howe	Meadows Howe	—	—	—	Piel H	Piel H Empty 10/	Hauseman Cove to Meadows		Hauseman Cove Meadows		—
	B		Minutes Per Car						14.9 10.3 13.3 10.3	2.1 1.8 2.8 1.8				6.3 3.9	6.3 3.9	15.3	2.1	13.3 10.3 14.9 9.0		
	ATSF 1248N6	10 Pm	9/25	Mead 4774 4770	5-15 Pm	9/27	—	—	Meadows Hauseman Cove	Meadows Hauseman Cove	—	—	—	Piel K	Piel K Empty 9/27	—	—	Hauseman Cove		Placed on Bridge 3,
	B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9	6.3 3.9			13.3 10.3		
	SP 32283	1 30 Pm	9/25	Mead Fast 4771 620a	9 45 Pm	9/27	—	—	Meadows Hauseman Cove	Meadows Hauseman Cove	—	—	—	Piel K	Piel K Empty 9/28	—	—	Hauseman Cove		Placed on Bridge 9,
	B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8		✓		6.3 3.9	6.3 3.9			13.3 10.3		
	ATSF 273428	1 30 P	9/25	Mead Fast 4771 620a	2 45 P	9/30	—	—	Meadows Hauseman Cove	Meadows Hauseman Cove	(17) 13.3 10.3		—	Piel K	—	—	—	—	—	Reloaded Lakeway
	B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8	(18) (11) 14.9 9.0 (1) 13.3 10.3			6.3 3.9						
	SooL 46472	1 30 P	9/25	Mead Fast 4771 620a	8 50 P	9/28	—	—	Meadows Hauseman Cove	Meadows Hauseman Cove	—		—	Piel K	—	—	—	—	—	Reloaded Meadows
	B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8	(12) (10) 2.8 1.8 (1) 1.8			6.3 3.9						
	NYC 157794	1 30 P	9/25	Mead Fast 4771 620a	8 45 P	9/28	—	—	Meadows Hauseman Cove	Meadows Hauseman Cove	(19) 6.3 3.9		—	Piel K	—	—	—	—	—	Reloaded Wilkes B
	B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9						
	NKP 1676L	1 30 P	9/25	Mead Fast 4771 620a	8 30 P	9/27	—	—	Meadows Hauseman Cove	Meadows Hauseman Cove	—	—	—	Piel K	Piel K Empty 9/28	—	—	Hauseman Cove		Reloaded Rockland
	B		Minutes Per Car						14.9 9.0 13.3 10.3	2.8 1.6				6.3 3.9	6.3 3.9			X		
	WAB 84798	1 30 P	9/25	Mead Fast 4771 620a	9 30 Pm	9/27	—	—	Meadows Hauseman Cove	Meadows Hauseman Cove	—	—	—	Piel L	Piel K Empty 9/26	—	—	Hauseman Cove		Reloaded Rockland
	B		Minutes Per Car						14.9 9.0 13.3 10.3	1.8				6.3 3.9	6.3 3.9			X		

(12) 2.3 1.4 (8) 2.8 1.8 (1) 2.1 1.1 (11) 6.3 3.9 (12) 6.3 3.9 (1) 6.3 2.1 (1) 13.3 10.3 (1) 14.9 9.0

48

Car																				
8 70 12	10⁰⁰ PM	9/27/52	—	—	Meadows Hanneman Cove	Meadows Hanneman Cove	—	—	—	Pilot L.	Pilot L Empty 9/27	—	—	Hanneman Cove		Placed on float 653, Bridge 3, empty 9/27
Car					14.9 9.0 13.3 10.3	2.2 1.8				6.3 3.9	6.3 3.9			13.3	10.3	
8 71 12	9⁰⁰ PM	9/27	—	—	[illegible] Hanneman Cove	Meadows Hanneman Cove	—	—	—	Pilot L	Pilot L Empty 9/28	—	—	Hanneman Cove		Placed on float 567, Bridge 9, empty 10/1
Car					14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9	6.3 3.9			13.3	10.3	
6 Jan 12*	10 35 AM	10/4			Waverly Meadows Haven	Meadows to Haven	—	—	—	Pilot H	Pilot H Empty 10/5	Hanneman Cove to Meadows		Hanneman Cove Meadows		— —
Car					13.2 10.3 13.9 10.3	2.1 1.8 2.8 1.8				6.3 3.9	6.3 3.9	15.3	2.1	13.3 14.9	10.3 9.0	
8 70 12	5¹⁵ PM	9/27	—	—	Meadows Hanneman Cove	Meadows Hanneman Cove	—	—	—	Pilot L	Pilot L Empty 9/27	—	—	Hanneman Cove		Placed on float 653, Bridge 3, empty 9/27
Car					14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9	6.3 3.9			13.3	10.3	
8 71 12	9⁴⁵ PM	9/28	—	—	Meadows Hanneman Cove	Meadows Hanneman Cove	—	—	—	Pilot L	Pilot L Empty 9/28	—	—	Hanneman Cove		Placed on float 103, Bridge 9, empty 9/28
Car					14.9 9.0 13.3 10.3	2.8 1.8		✓		6.3 3.9	6.3 3.9			13.3	10.3	
8 71 12	2⁴⁵ P	9/30	—	—	Meadows Hanneman Cove	Meadows Hanneman Cove			—	Pilot L	—	—	—	—	—	Reloaded Pilot L to Rahway NJ 9/29
Car					14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9						
8 71 12	8⁵⁰ P	9/28	—	—	Meadows Hanneman Cove	Meadows Hanneman Cove			—	Pilot K	—	—	—	—	—	Reloaded Pilot K Passaic NJ 9/29
Car					14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9						
8 71 12	8⁴⁵ P	9/28	—	—	Meadows Hanneman Cove	Meadows Hanneman Cove			—	Pilot K	—	—	—	—	—	Reloaded Pilot K to Wilkes Barre Pa 10/2
Car					14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9						
8 71 12	8³⁰ P	9/27	—	—	Meadows Hanneman Cove	Meadows Hanneman Cove	—	—	—	Pilot L	Pilot L Empty 9/28	—	—	Hanneman Cove		Reloaded Pilot K to Roebling NJ 9/28
Car					14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9	6.3 3.9			X		
8 71 12	9³⁰ PM	9/27	—	—	Meadows Hanneman Cove	Meadows Hanneman Cove	—	—	—	Pilot L	Pilot K Empty 9/28	—	—	Hanneman Cove		Reloaded Pilot K to Roebling NJ 9/28
Car					14.9 9.0 13.3 10.3	2.8 1.8				6.3 3.9	6.3 3.9			X		

4851

Elements Of Service Accorded and Minutes Required For Cars Of Import Freight Destined To Differential Territories At P

Week of Sept. 25-Oct. 1 1951

From Agent's Statement					Supplying Of Empty Car			Empty and/or Loaded			LOADED		
Car (A)	Loaded At (S)	Time (C)	Date (D)	Destination (E)	Classified At (F)	Transfer To (G)	(H)	Placement At (I)	Weighed At (J)	Iced At (K)	Shopped At (L)	Removed From (M)	Transfer To (N)	(O)
PRR 72567	Steubenville		9/27/51	Chicago	WAVERLY HARSINUS COVE	WAVERLY HARSINUS COVE		FLOAT 662 BRIDGE 6 EMPTY 9/28	—	—	—	FLOAT 662 BRIDGE 6 9/29	HARSINUS COVE WAVERLY	RRSD
E	Minutes Per	Car			13.3 10.3	6.6 2.1		4.1 2.5				4.1 2.5	5.8 5.4	
ACL 27909			10/1/51	Steubenville C	GREENVILLE HARSINUS COVE	GREENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 8 EMPTY 10/1	—	—	—	FLOAT 587 BRIDGE 7 10/2	—	—
E	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.8				4.9 2.5		
MP 35675			10/1	Steubenville C	MEADOWS HARSINUS COVE	MEADOWS HARSINUS COVE		FLOAT 587 BRIDGE 8 EMPTY 10/1	—	—	—	FLOAT 587 BRIDGE 7 10/2	—	—
E	Minutes Per	Car			14.9 9.0 13.3 10.3	2.8 1.8		3.8 1.8				4.9 2.5		
TNO 65136			9/28	Steubenville C	GREENVILLE HARSINUS COVE	GREENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 8 EMPTY 9/28	—	—	—	FLOAT 587 BRIDGE 6 9/29	—	—
E	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.9				4.9 2.5		
PRG 18932			9/28	Akron O	WAVERLY HARSINUS COVE	WAVERLY HARSINUS COVE		FLOAT 662 BRIDGE 6 EMPTY 9/28	—	—	—	FLOAT 656 BRIDGE 5 9/29	HARSINUS COVE WAVERLY	RRSD
E	Minutes Per	Car			15.7 10.7 13.3 10.3	6.6 2.1		3.8 1.9				4.1 2.5	5.8 5.4	
13151			9/28	Akron O	MEADOWS HARSINUS COVE	MEADOWS HARSINUS COVE		FLOAT 536 BRIDGE 8 EMPTY 9/28	—	—	—	FLOAT 536 BRIDGE 5 9/29	—	—
E	Minutes Per	Car			14.9 9.0 13.3 10.3	2.8 1.8		3.8 1.8				3.8 2.3		
NKTL 56150			9/28	Waverly, WVa	GREENVILLE HARSINUS COVE	GREENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 9 EMPTY 9/28	—	(3) 15.7 10.7 (4) 14.7 9.0	—	FLOAT 587 BRIDGE 6 9/29	—	—
E	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.9	-	(2) - 2.6		4.1 2.5		
[illegible]			9/28	Barrington Sta	GREENVILLE HARSINUS COVE	GREENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 5 EMPTY 9/28	—	(12) (3) 3.8 2.6 (6) 5.7	1.8 2.1 5.4	FLOAT 587 BRIDGE 6 9/29	—	—
E	Minutes Per	Car			9.3 6.6 13.3 10.3	2.6		3.8 1.9				4.1 2.5		
[illegible]			9/	McKees Rocks Pa	GREENVILLE HARSINUS	GREENVILLE HARSINUS		FLOAT 573 BRIDGE 8 [illegible]	—	(1) 4.1 2.5		FLOAT 573 BRIDGE 6	—	—

A-3 (6)

Elements Of Service Accorded and Minutes Required For Cars Of Import, Freight Destined To Differential Territories At Port of NEW YORK

Week of SEPT. 25-OCT. 1 1951

(Manhattan ST Transfer; Loaded into cars on Car Float)

WB Date (D)	Destination (E)	Supplying Of Empty Car: Classified At (F)	Transfer To (G)	(H)	Placement At (I)	Empty and/or Loaded: Weighed At (J)	Load At (K)	Shopped At (L)	LOADED CAR: Removed From (M)	Transfer To (N)	(O)	Classified At (P)	To Comm'dls Fr. Comm'dls (Q)	Other Service Ld or Mty (R)	Total Minutes (S)	
9/27/51	Chicago	WAVERLY HARSIMUS COVE	WAVERLY HARSIMUS COVE		FLOAT 662 BRIDGE 6 EMPTY 9/28	—	—	—	FLOAT 662 BRIDGE 6 9/29	HARSIMUS COVE WAVERLY	(ESD) 9/30	HARSIMUS COVE	—	—		LEFT WAVERLY SWC 9/30
		13.2 10.7 13.3 10.3	6.6 2.1		4.1 2.5				4.1 2.5	5.8 5.4		13.3 10.3				
10/1/51	Steubenville C	GALLANVILLE HARSIMUS COVE	GREENVILLE HARSIMUS COVE		FLOAT 587 BRIDGE 8 EMPTY 10/1	—	—	—	FLOAT 587 BRIDGE 7 10/2	—	—	HARSIMUS COVE	—	CLEANED AT MEADOWS EMPTY		LEFT HARS. COVE WC 1 10/2
		9.3 6.6 13.3 10.3	- 2.6		3.8 1.8				4.9 2.5			13.3 10.3		15.5 3.9		
10/1	Steubenville C	MEADOWS HARSIMUS COVE	MEADOWS HARSIMUS COVE		FLOAT 587 BRIDGE 8 EMPTY 10/1	—	—	—	FLOAT 587 BRIDGE 7 10/2	—	—	HARSIMUS COVE	—	—		LEFT HARS COVE WC 1 10/2
		14.9 9.0 13.3 10.3	2.8 1.8		3.8 1.8				4.9 2.5			13.3 10.3				
9/28	Steubenville C	GREENVILLE HARSIMUS COVE	GREENVILLE HARSIMUS COVE		FLOAT 587 BRIDGE 8 EMPTY 9/28	—	—	—	FLOAT 587 BRIDGE 6 9/29	—	—	HARSIMUS COVE	—	CLEANED AT HARS. COVE EMPTY		LEFT HARS COVE WC-1 9/30
		9.3 6.6 13.3 10.3	- 2.6		3.8 1.9				4.9 2.5			13.3 10.3		4.6 3.3		
9/29	Akron O	WAVERLY HARSIMUS COVE	WAVERLY HARSIMUS COVE		FLOAT 662 BRIDGE 6 EMPTY 9/29	—	—	—	FLOAT 656 BRIDGE 5 9/29	HARSIMUS COVE WAVERLY	(ESD) 9/30	HARSIMUS COVE WAVERLY	—	—		LEFT WAVERLY SWC 9/30
		15.7 10.7 13.3 10.3	6.6 2.1		3.8 1.9		1		4.1 2.5	5.8 5.4		13.3 10.3 15.7 10.7				
9/28	Akron O	MEADOWS HARSIMUS COVE	MEADOWS HARSIMUS COVE		FLOAT 662 BRIDGE 5 EMPTY 9/29	—	Clear	—	FLOAT 587 BRIDGE 5 9/29	—	—	HARSIMUS COVE	—	CLEANED AT MEADOWS 9/30		LEFT HARS. COVE WC 1
		14.9 9.0 13.3 10.3	2.8 1.8		3.8 1.8		(3) 13.2 6.6 13.3 10.3		3.8 2.3			13.3 10.3		15.5 3.8		
9/28	Warren, WVa	GREENVILLE HARSIMUS COVE	GREENVILLE HARSIMUS COVE		FLOAT 587 BRIDGE 9 EMPTY 9/28	—	(3) 15.7 10.7 14.9 9.0	—	FLOAT 587 BRIDGE 6 9/29	—	—	HARSIMUS COVE	—	CLEANED AT HARS. COVE EMPTY		LEFT HARS COVE WC 1 9/30
		9.3 6.6 13.3 10.3	- 2.6		3.8 1.9		(4) - 2.6		4.1 2.5			13.3 10.3		4.6 3.3		
9/28	Barrington Sta	GREENVILLE HARSIMUS COVE	GREENVILLE HARSIMUS COVE		FLOAT 587 BRIDGE 5 EMPTY 9/28	—	(11) (3) 3.8 1.8 (2) 2.6 2.1 (1) 5.8 5.4		FLOAT 587 BRIDGE 6 9/29	—	—	HARSIMUS COVE	—	CLEANED AT HARS. COVE EMPTY		LEFT HARS COVE WC 1
		9.3 6.6 13.3 10.3	- 2.6		3.8 1.9				4.1 2.5			13.3 10.3		4.6 3.3		
9/27	McKees Rocks Pa	GREENVILLE HARSIMUS COVE	GREENVILLE HARSIMUS COVE		FLOAT 587 BRIDGE 8 EMPTY 9/28	—	(20) (3) 4.1 2.5 (2) 3.8 1.9 (1) 4.9 2.5		FLOAT 587 BRIDGE 6 9/29	—	—	HARSIMUS COVE	—	CLEANED AT HARSIMUS COVE 9/30		LEFT HARS COVE 9/30
		9.3 6.6														

E	Minutes Per	Car			15.2 10.7 13.3 10.3	6.6 2.1		4.1 2.5				4.1 2.5	5.8 5.4		
ACL 27909			10/26	Steubenville O	GLENVILLE HARSINUS COVE	GRENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 8 EMPTY 10/1	—	—	—	FLOAT 587 BRIDGE 7 10/2	—	—	
A	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.8				4.9 2.5			
MP 35675			10/	Steubenville O	MEADOWS HARSINUS COVE	MEADOWS HARSINUS COVE		FLOAT 587 BRIDGE 8 EMPTY 10/1	—	—	—	FLOAT 587 BRIDGE 7 10/2	—	—	
B	Minutes Per	Car			14.9 9.0 13.3 10.3	2.8 1.8		3.8 1.8				4.9 2.5			
TNO 65236			9/28	Steubenville O	GRENVILLE HARSINUS COVE	GRENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 9 EMPTY 9/28	—	—	—	FLOAT 587 BRIDGE 6 9/29	—	—	
C	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.9				4.9 2.5			
RIG 18732			9/28	Akron O	WAVERLY HARSINUS COVE	WAVERLY HARSINUS COVE		FLOAT 656 BRIDGE 6 EMPTY 9/28	—	—	—	FLOAT 656 BRIDGE 5 9/29	HARSINUS COVE WAVERLY	FF&D 8/	
D	Minutes Per	Car			15.2 10.2 13.3 10.3	6.6 2.1		3.8 1.9			1	4.1 2.5	5.8 5.4		
SP 113151			9/28	Akron O	MEADOWS HARSINUS COVE	MEADOWS HARSINUS COVE		FLOAT 586 BRIDGE 8 EMPTY 9/28	—	—	—	FLOAT 586 BRIDGE 5 9/29	—	—	
F	Minutes Per	Car			14.9 9.0 13.3 10.3	2.8 1.8		3.8 1.8				3.8 2.3			
NC&St L 54150			9/28	Warren, WVa	GREENVILLE HARSINUS COVE	GRENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 9 EMPTY 9/28	—	(3)	(3) 15.2 10.2 (3) 14.2 9.0	FLOAT 587 BRIDGE 6 9/29	—	—	
E	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.9			(1) - 2.6	4.1 2.5			
			9/28	Barrington Sta	GRENVILLE HARSINUS COVE	GRENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 5 EMPTY 9/28	—	(12)	(3) 3.8 1.8 (2) 2.6 2.1 (1) 5.8 5.4	FLOAT 587 BRIDGE 6 9/29	—	—	
A	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.9				4.1 2.5			
			9/28	McKees Rocks Pa	GRENVILLE HARSINUS COVE	GRENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 8 EMPTY 9/28	—	(20)	(1) 4.1 2.5 (2) 2.8 1.9 (3) 4.9 2.5	FLOAT 587 BRIDGE 6 9/29	—	—	
B	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.8			(1) 3.8 2.3	4.1 2.5			
			9/28	Warren WVa	GRENVILLE HARSINUS COVE	GRENVILLE HARSINUS COVE		FLOAT 587 BRIDGE 9 EMPTY 9/28	—	(7)	(2) 15.2 10.2 (3) 14.2 9.0	FLOAT 587 BRIDGE 6 9/29	—	—	
R	Minutes Per	Car			9.3 6.6 13.3 10.3	- 2.6		3.8 1.9		(15)		4.1 2.5			
					(6) 9.3 6.6 (12) 13.3 10.3 (1) 15.2 10.2 (3) 14.2 9.0	(1) - 2.6 (2) 2.8 1.8 (2) 6.6 2.1		(1) - 1 - 5 (4) - 1 - 4				(6) 4.1 2.5 (3) 4.9 2.5 (1) 3.8 2.3	(2) 5.8 5.4		

10.3	6.6 2.1		4.1 2.5					4.1 2.5	5.8 5.4		13.3 10.3								
NVILLE NUS E	GREENVILLE HARSINUS COVE		FLOAT SET BRIDGE 8 EMPTY 10/1	—	—	—		FLOAT SET BRIDGE 7 10/2	—	—	HARSINUS COVE	—		CLEANED AT MEADOWS EMPTY				LEFT HARS COVE WC1 10/2	
6.6 10.3	- 2.6		3.8 1.8					4.9 2.5			13.3 10.3			15.5 3.8					
OWS NUS E	MEADOWS HARSINUS COVE		FLOAT SET BRIDGE 8 EMPTY 10/1	—	—	—		FLOAT SET BRIDGE 7 10/2	—	—	HARSINUS COVE	—		—				LEFT HARS COVE WC1 10/2	
9.0 10.3	2.8 1.8		3.8 1.8					4.9 2.5			13.3 10.3								
NVILLE NUS E	GREENVILLE HARSINUS COVE		FLOAT SET BRIDGE 5 EMPTY 9/28	—	—	—		FLOAT SET BRIDGE 6 9/29	—	—	HARSINUS COVE	—		CLEANED AT HARS. COVE EMPTY				LEFT HARS COVE WC-1 9/29	
6.6 10.3	- 2.6		3.8 1.9					4.9 2.5			13.3 10.3			4.6 3.3					
PLY NUS E	WAVERLY HARSINUS COVE		FLOAT SET BRIDGE 6 EMPTY 9/28	—	—	—		FLOAT SET BRIDGE 5 9/29	HARSINUS COVE WAVERLY	SET 9/30	HARSINUS COVE WAVERLY	—		—				LEFT WAVERLY SWC 9/29	
10.7 10.3	6.6 2.1		3.8 1.9			1		4.1 2.5	5.8 5.4		13.3 10.3 15.7 10.7								
OWS NUS E	MEADOWS HARSINUS COVE		FLOAT SET BRIDGE 8 EMPTY 9/28	—	Clear	—		FLOAT SET BRIDGE 5 9/29	—	—	HARSINUS COVE	—		CLEANED AT MEADOWS 9/29				LEFT HARS COVE WC1	
9.0 10.3	2.8 1.8		3.8 1.8		⑥ 9.3 6.4 ⑦ 13.3 10.3			3.8 2.3			13.3 10.3			15.5 3.8					
NVILLE NUS VE	GREENVILLE HARSINUS COVE		FLOAT SET BRIDGE 9 EMPTY 9/28	—	⑤ 15.7 10.7 ④ 14.7 9.0			FLOAT SET BRIDGE 6 9/29	—	—	HARSINUS COVE	—		CLEANED AT HARS. COVE EMPTY				LEFT HARS COVE WC1 9/29	
6.6 10.3	- 2.6		3.8 1.9		③ - " 2.6			4.1 2.5			13.3 10.3			4.6 3.3					
NVILLE NUS E	GREENVILLE HARSINUS COVE		FLOAT SET BRIDGE 5 EMPTY 9/28	—	⑫ ③ 2.8 ② 2.6 ① 5.7	1.8 2.1 5.4		FLOAT SET BRIDGE 6 9/29	—	—	HARSINUS COVE	—		CLEANED AT HARS. COVE EMPTY				LEFT HARS COVE WC1 9/29	
6.6 10.3	- 2.6		3.8 1.9					4.1 2.5			13.3 10.3			4.6 3.3					
VILLE NUS VE	GREENVILLE HARSINUS COVE		FLOAT SET BRIDGE 8 EMPTY 9/28	—	⑳ ⑨ 4.1 ⑧ 3.8 ⑩ 4.9	2.5 1.9 2.5		FLOAT SET BRIDGE 6 9/29	—	—	HARSINUS COVE	—		CLEANED AT HARSINUS COVE MTY				LEFT HARS COVE 9/29	
6.6 10.3	2.6		3.8 1.8		⑪ 3.8	2.3		4.1 2.5			13.3 10.3			4.6 3.3					
NVILLE NUS E	GREENVILLE HARSINUS COVE		FLOAT SET BRIDGE 9 EMPTY 9/28	—	⑦ ② 15.8 ⑤ 4.6	7.8 3.7		FLOAT SET BRIDGE 6 9/29	—	—	HARSINUS COVE	—		CLEANED AT HARS COVE EMPTY				LEFT HARS COVE WC1	
6.6 10.3	- 2.6		3.8 1.9		⑬			4.1 2.5			13.3 10.3			4.6 3.3					
6.6 10.3 9.0	① - 2.6 ② 2.8 1.8 ③ 6.6 2.1		1) - 1 - 3 ④ 1 4					④ 4.1 2.5 ③ 4.9 2.5 ① 3.8 2.3	② 4.9 5.4		⑤ 13.3 10.3 ① 15.2 10.7			② 15.5 3.8 ③ 4.6 3.3				4852	

[fol. 4853]

I.C.C. Exhibit No. 131

COPY

NEW YORK CENTRAL SYSTEM

New York, April 22, 1958

Re: I&S Docket No. 6615
Equalization of Rates at North Atlantic Ports

Mr. R. R. Bongartz
General Attorney
The Pennsylvania Railroad
Transportation Center
Six Penn Center Plaza
Philadelphia 4, Pennsylvania

Mr. Jervis Langdon, Jr.
General Counsel
The Baltimore & Ohio Railroad Company
Baltimore & Ohio Building
Baltimore and Charles Streets
Baltimore 1, Maryland

Gentlemen:

As you realize, we are committed to a date of May 22nd for the circulation of our rebuttal testimony. In order that we may meet that date, you understand the importance of our timely receipt of that material and additional information which we have heretofore requested or which the record discloses you have volunteered to furnish.

I am now in receipt of the entire transcript to date, and I am taking the liberty of listing for your convenience the items to be furnished and the transcript page reference to each. I have deleted from the following list those items [fol. 4854] previously requested and furnished on redirect examination and also some items which I have been informed can only be secured with a great deal of effort.

1. Transcript page 1444.

The 1956 total of cars moving through the Harsimus Cove Float Bridge, divided into export/import and all-other

2. Transcript page 1444.

The car float and lighterage information from Budget Bureau Form No. 49-R 268.6 (Vessel Operation Report furnished to the Department of the Army, Corps of Engineers), the annual figures, and also for the month of September 1956. [The information concerning lighterage movements was requested by my letter of March 31.]

3. Transcript page 1573.

The maintenance expenses for the three years, stated separately, used in developing the maintenance costs for the month of September 1956, for Harsimus Cove Float Bridge.

4. Transcript page 1576.

The percentages developed for use in allocating the expenses distributed to import/export traffic for the account of Jersey City lighterage and Greenville lighterage facilities.

5. Transcript page 1607.

Mr. Talbott to supply information concerning all CNJ lighterage piers operated in September 1956 along with the taxes and valuations in connection therewith.

6. Transcript page 1608.

Mr. Talbott to furnish as a late-filed exhibit a map of the CNJ lighterage facilities, the map to have indicated thereon the places where bulk cement in gondola cars is handled, the location where bulk cement in air-activated containers is handled, and also where any cement other than the above is handled.

7. Transcript pages 1620-1621.

The record and exhibits indicate that 23,000 tons of cement moved in 32 cars—admittedly a physical im-

possibility. Mr. Talbott agreed to furnish a reconciliation of the figures producing this result.

[fol. 4855] 8. Transcript pages 1624-1625.

Similarly, Mr. Talbott to furnish a reconciliation of the number of cars shown receiving a marine movement in September 1956, shown on page 1540 of the record as 10,328 and on page 1541 of the record as 10,157.

9. Transcript page 1627.

Mr. Talbott to supply, for the study period, the number of tons of general cargo traffic, carload forwarder traffic, and LCL traffic by categories and in connection with the New York pier stations through which they were handled.

In the discussion of the car float and lighterage information requested of the Pennsylvania Railroad for the year 1956 and separately for the month of September 1956, the record discloses at page 1566 that, because of apparent lack of understanding as to the reports requested, copies of the reports concerning these movements furnished to the Department of the Army, Corps of Engineers by the New York Central for the year 1956 were made available to Mr. Bongartz. In order that the Examiner may be advised as to the form and nature of these reports, copies of the same reports furnished to Mr. Bongartz are enclosed for his benefit.

Yours very truly,

/s/ JOHN H. COLGREN
John H. Colgren

JHC:ve

cc: Mr. Marion L. Boat
Examiner
Interstate Commerce Commission
Washington 25, D. C.

[fol. 4856]

I.C.C. Exhibit No. 132

COPY
April 28, 1958

1138 Transportation Center
Six Penn Center Plaza
Philadelphia 4, Pennsylvania

Re: I&S Docket No. 6615
Equalization of Rates at North Atlantic Ports

John H. Colgren, Esq.
Assistant General Solicitor
The New York Central Railroad Co.
230 Park Avenue
New York 17, New York

Dear John:

This is in reply to your letter of April 22, 1958, addressed to Mr. Langdon and myself, insofar as your letter deals with matters to be supplied by The Pennsylvania Railroad.

1. As indicated on the Record at p. 1572, the data requested in this item of your letter is not available.

2. Due to the illness of one of the people directly involved in developing the information regarding Budget Bureau Form 49-R 268.6, we have as yet been unable to secure all of the requested information. I will forward this information to you just as soon as our people are able to produce it.

3. I enclose a photostatic copy of a sheet entitled "Maintenance Expenses-Harsimus Cove Flat Bridges" which shows the maintenance expenses which you have requested for Harsimus Cove Float Bridge.

4. I enclose a photostat of a sheet entitled "Service Matters and Related Percents by Classes of Marine Equipment for Total Traffic and Foreign Lighterage Traffic, New York,

N.Y." which shows the information requested in this item [fol. 4857] of your letter. You will note that the footnote on the sheet indicates that a clerical error has resulted in an understatement of our costs in this item.

Very truly yours,

Richard R. Bongartz
General Attorney

cc: Marion L. Boat, Esq.
Examiner
Interstate Commerce Commission
Washington 25, D.C.

PENNSYLVANIA RAILROAD
MAINTENANCE EXPENSES - [illegible] CAPE FEAR BRIDGES
SEGREGATED AS TO CONTRACT & RAILROAD EXPENSE
YEARS 1954 1955 & 1956

	1954	1955	1956	3 YEAR TOTAL	AVERAGE MONTH
ACCOUNT 241 - WHARVES & DOCKS					
CONTRACT EXPENSE					
A. N. SPOONER & SON, INC.	-	23448 70	38035 86	61 484 [illegible]	1707 [illegible]
REUTNER ENGINEERING & MACHINE CO.	230 76	505 37	2991 01	3727 [illegible]	103 [illegible]
[illegible] WELDING SERVICE	2386 3	351 05	176 00	713 [illegible]	19 [illegible]
TOTAL	4043 [illegible]	24 305 12	41 152 87	65 [illegible]	[illegible]
RAILROAD EXPENSE					
M.W.O.S. LABOR					
SUPERVISOR OF STRUCTURES	37 682 36	20 349 48	17 524 48	75 556 32	
SUPERVISOR OF TRACK	100 67	84 67	54 46	239 80	
TOTAL	37 783 03	20 434 16	17 578 94	75 796 12	
PLUS: 8% FOR VACATION, HOLIDAYS & HEALTH & WELFARE	3022 64	1634 26	1406 32	6063 21	
TOTAL M.W.O.S.	40 805 67	22 062 40	18 985 26	81 853 33	2279 70
M. OF E. LABOR					
[illegible]	4 670 22	5 279 51	5 069 40	15 019 13	
SHOP EXPENSE	1004 29	1135 32	1088 44	3 228 45	
TOTAL	5674 51	6414 83	6 152 24	18 241 58	
PLUS 6% FOR VACATION & HOLIDAYS & DIRECT LABOR.	290 21	316 77	303 81	910 79	
TOTAL	5 754 72	6 731 60	6 456 05	19 142 37	
[illegible] ORDER ITEMS	-	1347 54	7 [illegible]	35 [illegible]	
SHOP EXPENSE	-	219 71	1 [illegible]	24 [illegible]	
TOTAL	-	1 [illegible] 25	950	1646 [illegible]	
PLUS 8% FOR VACATION & HOLIDAYS & DIRECT LABOR		20 85	47	81 32	
TOTAL	-	1718 17	997	1728 14	
TOTAL M. OF E.	5754 72	8449 77	7466 02	20 870 51	574 74
GRAND TOTAL - RAILROAD LABOR	46760 34	30512 17	25451 28	102 723 79	2853 [illegible]
PAYROLL TAXES	2352 38	1861 24	1552 53	6266 15	174 [illegible]

[fol. 4]

PENNSYLVANIA RAILROAD
MAINTENANCE EXPENSES - [illegible] CAVE FLOAT BRIDGES
SEPARATED AS TO CONTRACT & RAILROAD EXPENSE
YEARS 1954 1955 & 1956

GRAND TOTAL - RAILROAD LABOR	46760 39	30512 17	25451 28	102723 84	2853 --	
PAYROLL TAX @ 6½%	2352 38	1861 24	1552 53	6266 15	174 06	
MATERIAL	3171 04	10779 94	18050 88	37001 86		
PLUS 10% FOR STORES EXPENSE	817 10	1075 00	1805 09	3701 19		
TOTAL	8988 14	11854 94	19855 97	40702 05	11306 1	
ACCOUNT 241 - SUMMARY.						
CONTRACT EXPENSE	JUNE 7	468 39	24305 12	41157 87	66931 38	18215 1
RAILROAD LABOR	.36	46760 39	30512 17	25451 28	102723 84	2853 44
RAILROAD MATERIAL	.42	8988 14	11854 94	19855 97	40702 05	11306 1
TOTAL EXPENSE	.46, 46, 47	56217 92	66672 23	86467 12	209360 27	5815 56
PAYROLL TAX	.38	2852 38	1561 24	1582 83	6266 15	174 06

[fol. 4858]

3649

PERCENTS USED: GREENVILLE 12.30% (CORRECT)

(See opposite) ☞

I & S DOCKET 6615
EXHIBIT 119

PENNSYLVANIA RAILROAD
SERVICE MINUTES & RELATED PERCENTS BY
CLASSES OF MARINE EQUIPMENT FOR
TOTAL TRAFFIC AND FOREIGN LIGHTERAGE TRAFFIC
NEW YORK, N.Y.

		BARGES & LIGHTERS FOREIGN TRAFFIC	
	TOTAL	GREENVILLE	JERSEY CITY
STEAM TOWING TUGS			
SERVICE MINUTES	21,040	2,092	3,143
PERCENTS	100.00	9.94	14.94
MARINE HARBOR TUGS 1/			
SERVICE MINUTES	104,320	12,834	22,569
PERCENTS	100.00	12.30	21.64
STEAM LIGHTERS			
SERVICE MINUTES	3,055	2,743	242
PERCENTS	100.00	89.79	9.56
BARGES & LIGHTERS			
SERVICE MINUTES	1,715,495	556,808	836,093
PERCENTS	100.00	32.46	48.74

1/ INVESTIGATION DEVELOPS THAT, THROUGH A TRANSPOSITION OF FIGURES, THE PERCENT USED FOR JERSEY CITY MARINE HARBOR TUG PORTION OF MARINE EXPENSES WAS NOT THE CORRECT FIGURE.

PERCENTS USED: GREENVILLE 12.30% (CORRECT)
JERSEY CITY 5.67% (THIS SHOULD HAVE BEEN 21.64%)

4858A

[fol. 4859]

I.C.C. EXHIBIT No. 133

COPY
May 1, 1958

1138 Transportation Center
Six Penn Center Plaza
Philadelphia 4, Penna.

Re: Equalization of Rates at North Atlantic Ports—
I&S 6615

John H. Colgren, Esq.
Assistant General Solicitor
The New York Central Railroad Co.
466 Lexington Avenue
New York 17, N. Y.

Dear John:

I enclose a copy of the Budget Bureau Reports which you have requested in connection with the above-captioned matter.

You will note that the data for the carfloats appears on Budget Form No. 49-R268. These forms which contain the data for the year 1956 are those which were filed with the appropriate Government Agency. As you know, the report to the Government is made only on a yearly basis. The forms which contain the data for September, 1956 were not filed with the Government but have been computed by our people from the underlying data which went into the yearly figure.

The sheets containing the data on barges, lighters and scows are exact duplicates of those filed with the Government. We do not use Form No. 49-R268 for this purpose. This latter data cannot be produced for the month of Sep-

tember because we do not maintain a segregation of the figures currently. We compile the yearly totals and distribute them between the various points on the basis of a short test period.

Very truly yours,

Richard R. Bongartz
General Attorney

Enc.

cc: Marion L. Boat, Examiner
Washington 25, D. C.

Approval expires 31 January 1957.

3653
[fol. 4860]

TRIP NO. (One way) _____ 19 56

NAME OR NO. OF VESSEL Various

NET REGISTER TONS

VESSEL OPERATION REPORT

STATEMENT OF FREIGHT AND PASSENGERS CARRIED

TYPE OF VESSEL (Check One)

- ☐ SELF PROPELLED, DRY CARGO AND PASSENGER
- ☐ SELF PROPELLED, TANKER
- ☐ TOWBOAT OR TUGBOAT
- ☒ NON-SELF PROPELLED, DRY CARGO
- ☐ NON-SELF PROPELLED, TANKER
- ☐ OTHER

FLAG American

DEPARTED FROM—				ARRIVED AT—				CARGO DATA (If light, so state)				LEAVE BLANK
PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	COMMODITY	QUANTITY	UNIT[1]	WEIGHT PER UNIT	NET TONS
North River	Prs 77-78	1956	7'	Harsimus Cove,	N.J. P.R.R.	1956	7'	Car Floats	2968			
								Genl. Mdse	393360			
								Cars Loaded	26189			
								Cars Light	3007			
								Cars Returned	35			
North River	Pier 79	1956	7'	Harsimus Cove,	N.J. P.R.R.	1956	7'	Car Floats	569			
								Genl. Mdse	73320			
								Cars Loaded	3450			
								Cars Light	635			
								Cars Returned	1438			
North River	68th St. NYC Rk	1956	7'	Harsimus Cove,	N.J. P.R.R.	1956	7'	Car Floats	438			
								Genl. Mdse.	41800			
								Cars Loaded	2090			
								Cars Light	2312			
								Cars Returned	—			

LOCALITIES ENTERED FOR: REFUGE _____ REPAIRS _____

FUELED AT: PORT _____ DOCK _____

KIND OF FUEL: OIL ☐ BBL. COAL ☐ TONS GAS ☐ GAL. _____

PROJECT CHANNELS USED (Where a choice exists, indicate waterways, exit and/or entrance channels used)

REMARKS

I HEREBY CERTIFY that this is an accurate and complete report of Trip No. _____ of this vessel.

SIGNED _____ TITLE _____

OPERATOR The Pennsylvania Railroad Co. ADDRESS New York, N.Y.

[1] Net tons, gross tons, bushels, etc.

4860

ENG Form 1—1 Dec 54—DEPARTMENT OF THE ARMY—CORPS OF ENGINEERS Previous editions of this form are obsolete. U. S. GOVERNMENT PRINTING OFFICE : 1955 O - 341917 55-10-6870-6

TRIP NO. (One way) _____ . 36

NAME OR NO. OF VESSEL: Various

NET REGISTER TONS:

VESSEL OPERATION REPORT
STATEMENT OF FREIGHT AND PASSENGERS CARRIED

TYPE OF VESSEL (Check One)
- ☐ SELF PROPELLED, DRY CARGO AND PASSENGER
- ☐ SELF PROPELLED, TANKER
- ☐ TOWBOAT OR TUGBOAT
- ☒ NON-SELF PROPELLED, DRY CARGO
- ☐ NON-SELF PROPELLED, TANKER
- ☐ OTHER

FLAG: American

DEPARTED FROM—				ARRIVED AT—				CARGO DATA (If light, so state)				LEAVE BLANK
PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	COMMODITY	QUANTITY	UNIT	WEIGHT PER UNIT	NET TONS
Harsimus Cove,	N.J. P.R.R.	1956	7'	North River	Prs 77-78	1956	7'	Car Floats	2968			
								Genl. Mdse.	83160			
								Cars Loaded	2772			
								Cars Light	26809			
Harsimus Cove,	N.J. P.R.R.	1956	7'	North River	Pr 79	1956	7'	Car Floats	569			
								Genl. Mdse.	—			
								Cars Loaded	—			
								Cars Light	5523			
Harsimus Cove,	N.J. P.R.R.	1956	7'	North River	68th St. NYC HR	1956	7'	Car Floats	438			
								Genl. Mdse.	120360			
								Cars Loaded	6044			
								Cars Light	226			

LOCALITIES ENTERED FOR: REFUGE _____ REPAIRS _____

FUELED AT: PORT _____ DOCK _____

KIND OF FUEL: OIL ☐ COAL ☐ GAS ☐ GAL. ☐ TONS ☐ GAL. _____

PROJECT CHANNELS USED (Where a choice exists, indicate waterways, exit and/or entrance channels used)

REMARKS

I HEREBY CERTIFY that this is an accurate and complete report of Trip No. _____ of this vessel.

SIGNED _____ TITLE _____

OPERATOR The Pennsylvania Railroad Co. ADDRESS New York, N.Y.

4861

* Net tons, gross tons, bushels, etc.

ENG Form 1—1 Dec 54—DEPARTMENT OF THE ARMY—Corps of Engineers — Previous editions of this form are obsolete.

[fol. 4862]

Budget Bureau No. 49-R368.4.
Approval expires 31 January 1957.

TRIP NO. (One way) _____ 19 56

NAME OR NO. OF VESSEL Various

NET REGISTER TONS

VESSEL OPERATION REPORT
STATEMENT OF FREIGHT AND PASSENGERS CARRIED

TYPE OF VESSEL (Check One)
- ☐ SELF PROPELLED, DRY CARGO AND PASSENGER
- ☐ SELF PROPELLED, TANKER
- ☐ TOWBOAT OR TUGBOAT
- ☒ NON-SELF PROPELLED, DRY CARGO
- ☐ NON-SELF PROPELLED, TANKER
- ☐ OTHER

FLAG American

DEPARTED FROM—				ARRIVED AT—				CARGO DATA (If light, so state)				LEAVE BLANK
PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	COMMODITY	QUANTITY	UNIT¹	WEIGHT PER UNIT	NET TONS
North River	Pier 28	1956	7'	Harsimus Cove,	N.J. P.R.R.	1956	7'	Car Floats	1812			
								Genl. Mdse.	7004			
								Cars Loaded	657			
								Cars Light	14847			
								Cars Returned	535			
North River	Pier 29	1956	7'	Harsimus Cove,	N.J. P.R.R.	1956	7'	Car Floats	1969			
								Genl. Mdse	222646			
								Cars Loaded	13718			
								Cars Light	2496			
								Cars Returned	2830			
North River	Prs 49-50	1956	7'	Harsimus Cove,	N.J. P.R.R.	1956	7'	Car Floats	3329			
								Genl. Mdse	161821			
								Cars Loaded	20715			
								Cars Light	7497			
								Cars Returned	3355			

LOCALITIES ENTERED FOR: REFUGE ____ REPAIRS ____

FUELED AT: PORT ____ DOCK ____

KIND OF FUEL: OIL ☐ BBL. COAL ☐ TONS GAS ☐ GAL. ____

PROJECT CHANNELS USED (Where a choice exists, indicate waterways, exit and/or entrance channels used)

REMARKS

I HEREBY CERTIFY that this is an accurate and complete report of Trip No. _____ of this vessel.

SIGNED _____ TITLE _____

OPERATOR The Pennsylvania Railroad Co.

ADDRESS New York, N.Y.

4862

¹ Net tons, gross tons, bushels, etc.

ENG Form 1-4 Dec 54—DEPARTMENT OF THE ARMY—Corps of Engineers — Previous editions of this form are obsolete.

Budget Bureau No. 49-R388.4.
Approval expires 31 January 1958.

TRIP NO. (One way) _____ 56 , 19__

NAME OR NO. OF VESSEL Various

NET REGISTER TONS

VESSEL OPERATION REPORT

STATEMENT OF FREIGHT AND PASSENGERS CARRIED

TYPE OF VESSEL (Check One)
- ☐ SELF PROPELLED, DRY CARGO AND PASSENGER
- ☐ SELF PROPELLED, TANKER
- ☐ TOWBOAT OR TUGBOAT
- ☒ NON-SELF PROPELLED, DRY CARGO
- ☐ NON-SELF PROPELLED, TANKER
- ☐ OTHER

FLAG American

DEPARTED FROM—				ARRIVED AT—				CARGO DATA (If light, so state)				LEAVE BLANK
PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	COMMODITY	QUANTITY	UNIT	WEIGHT PER UNIT	NET TONS
Harsimus Cove,	N.J. P.R.R.	1956	7'	North River	Pier 28	1956	7'	Car Floats	1812			
								Perishable	272202			
								Cars Loaded	14594			
								Cars Light	1450			
								Cars Held	----			
Harsimus Cove	NJ P.R.R.	1956	7'	North River	Pier 29	1956	7'	Car Floats	1969			
								Genl. Mdse.	2377			
								Cars Loaded	313			
								Cars Light	15572			
								Cars Held	3159			
Harsimus Cove,	N.J. P.R.R.	1956	7'	North River	Pr. 49-50	1956	7'	Car Floats	3329			
								Genl. Mdse.	62816			
								Cars Loaded	5741			
								Cars Light	22473			
								Cars Held	3355			

LOCALITIES ENTERED FOR: BEFORE ____ REMARKS

PASSED AT: TOWN ____ PORT ____

KIND OF PUBLIC: DRY CARGO ☐ PETROLEUM ☐ TOWBOAT ☐

PROJECT CHANNELS USED (Where a choice exists, indicate waterways, and/or entrances channels used)

REMARKS

I HEREBY CERTIFY that this is an accurate and complete report of Trip No. _____ of this vessel.

(Net tons, gross tons, barrels, etc.)

SIGNED The Pennsylvania Railroad Co.

TITLE

ADDRESS

DATE

WITH [illegible] 1-1 Dec 46—DEPARTMENT OF THE ARMY—Office of Operations

Form approved
Budget Bureau No. 49-R26.7

TRIP NO. (One way) _____, 19__ Sept. 1956

NAME OR NO. OF VESSEL: Various

NET REGISTER TONS

VESSEL OPERATION REPORT
STATEMENT OF FREIGHT AND PASSENGERS CARRIED

TYPE OF VESSEL (Check One)
- ☐ SELF PROPELLED, DRY CARGO AND PASSENGER
- ☐ SELF PROPELLED, TANKER
- ☐ TOWBOAT OR TUGBOAT
- ☒ NON-SELF PROPELLED, DRY CARGO
- ☐ NON-SELF PROPELLED, TANKER
- ☐ OTHER

FLAG: American

DEPARTED FROM—				ARRIVED AT—				CARGO DATA (If light, so state)				LEAVE BLANK
PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	COMMODITY	QUANTITY	UNIT*	WEIGHT PER UNIT	NET TONS
North River	Prs. 77-78	Sept. 1956	7'	Harsimus Cove,N.J.	P.R.R.	Sept. 1956	7'	Car Floats	245			
								Genl. Mdse.	33930			
								Cars Loaded	2262			
								Cars Light	219			
								Cars Returned	-			
North River	Pier 79	Sept. 1956.	7'	Harsimus Cove,N.J.	P.R.R.	Sept. 1956	7'	Car Floats	49			
								Genl.Mdse	6675			
								Cars Loaded	370			
								cars Light	43			
								Cars Returned	75			
North River	68th St. NYCRR	Sept. 1956	7'	Harsimus Cove,N.J.	P.R.R.	Sept. 1956	7'	Car Floats	36			
								Genl. Mdse.	5220			
								Cars loaded	261			
								Cars Light	176			
								Cars Returned	-			

LOCALITIES ENTERED FOR: REFUGE _____ REPAIRS _____

FUELED AT: PORT _____ DOCK _____

KIND OF FUEL: OIL ☐ BBL. COAL ☐ TONS GAS ☐ GAL. _____

PROJECT CHANNELS USED (Where a choice exists, indicate waterways, exit and/or entrance channels used)

REMARKS

I HEREBY CERTIFY that this is an accurate and complete report of Trip No. _____ of this vessel.

*Net tons, gross tons, barrels, etc.

SIGNED _____ TITLE _____

OPERATOR: The Pennsylvania Railroad Co.

ADDRESS: New York, N.Y.

RHB Form 1-1 Mar 57—DEPARTMENT OF THE ARMY Corps of Engineers. Previous editions of this form are obsolete.

U S GOVERNMENT PRINTING OFFICE 1957 O-420128

Form approved.
Budget Bureau No. 49-R247.

3658
[fol. 4865]

TRIP NO. ((round) way) _____, 19 Sept 1956

NAME OR NO. OF VESSEL: Various

NET REGISTER TONS

VESSEL OPERATION REPORT
STATEMENT OF FREIGHT AND PASSENGERS CARRIED

TYPE OF VESSEL (Check One)
- ☐ SELF PROPELLED, DRY CARGO AND PASSENGER
- ☐ SELF PROPELLED, TANKER
- ☐ TOWBOAT OR TUGBOAT
- ☒ NON-SELF PROPELLED, DRY CARGO
- ☐ NON-SELF PROPELLED, TANKER
- ☐ OTHER

FLAG: American

DEPARTED FROM—				ARRIVED AT—				CARGO DATA (If light, so state)				LEAVE BLANK
PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	COMMODITY	QUANTITY	UNIT[1]	WEIGHT PER UNIT	NET TONS
Harsimus Cove, N.J.	P.R.R.	Sept. 1956	7'	North River	Pre.77-78	Sept. 1956	7'	Car Floats	245			
								Genl.Mdse	6420			
								Cars Loaded	214			
								Cars Light	2347			
Harsimus Cove, N.J.	P.R.R.	Sept. 1956	7'	North River	Pr. 79	Sept. 1956	7'	Car Floats	49			
								Genl.Mdse.	-			
								Cars Loaded	-			
								Cars Light	488			
Harsimus Cove, N.J.	P.R.R.	Sept. 1956	7'	North River	66th St. NYCRR	Sept. 1956	7'	Car Floats	36			
								Genl.Mdse.	9200			
								Cars Loaded	460			
								Cars Light	28			

LOCALITIES ENTERED FOR: REFUGE _____ REPAIRS _____

FUELED AT: PORT _____ DOCK _____

KIND OF FUEL: ☐ OIL ☐ COAL ☐ GAS ☐ BBL. ☐ TONS ☐ GAL.

PROJECT CHANNELS USED (*Where a choice exists, indicate waterways, exit and/or entrance channels used*)

REMARKS

I HEREBY CERTIFY that this is an accurate and complete report of Trip No. _____ of this vessel.

SIGNED

TITLE 4865

OPERATOR: The Pennsylvania Railroad Co.

ADDRESS: New York, N.Y.

[1] Net tons, gross tons, bushels, etc.

Form approved
Budget Bureau No. 49-R356.7

TRIP NO. (One way) _____ 19 Sept. 1956

NAME OR NUMBER OF VESSEL: Varicma

NET REGISTER TONS

VESSEL OPERATION REPORT
STATEMENT OF FREIGHT AND PASSENGERS CARRIED

TYPE OF VESSEL (Check One)
- ☐ SELF PROPELLED, DRY CARGO AND PASSENGER
- ☐ SELF PROPELLED, TANKER
- ☐ TOWBOAT OR TUGBOAT
- ☒ NON-SELF PROPELLED, DRY CARGO
- ☐ NON-SELF PROPELLED, TANKER
- ☐ OTHER

FLAG American

DEPARTED FROM—				ARRIVED AT—				CARGO DATA (If light, so state)				LEAVE BLANK
PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	COMMODITY	QUANTITY	UNIT[1]	WEIGHT PER UNIT	NET TONS
North River	Pier 28	Sept. 1956	7'	Harsimus Cove,N.J.	P.R.R.	Sept. 1956	7'	Car Floats	103			
								Genl.Misc.	605			
								Cars Loaded	56			
								Cars Light	668			
								Cars Returned	30			
North River	Pier 29	Sept. 1956	7'	Harsimus Cove,N.J.	P.R.R.	Sept. 1956	7'	Car Floats	167			
								Genl.Misc.	17803			
								Cars Loaded	1213			
								Cars Light	181			
								Cars Returned	233			
North River	Pre.49-50	Sept. 1956	7'	Harsimus Cove,N.J	P.R.R.	Sept. 1956	7'	Car Floats	275			
								Genl.Misc.	16109			
								Cars Loaded	1898			
								Cars Light	609			
								Cars Returned	237			

LOCALITIES ENTERED FOR: REFUGE _____ REPAIRS _____

FUELED AT: PORT _____ DOCK _____

KIND OF FUEL: OIL ☐ BBL. COAL ☐ TONS GAS ☐ GAL. _____

PROJECT CHANNELS USED (Where a choice exists, indicate waterways, exit and/or entrance channels used)

REMARKS

I HEREBY CERTIFY that this is an accurate and complete report of Trip No. _____ of this vessel.

SIGNED _____ TITLE _____

OPERATOR The Pennsylvania Railroad Co.

ADDRESS New York, N.Y.

[1] Net tons, gross tons, bushels, etc.

RHB Form 1–1 Mar 57—DEPARTMENT OF THE ARMY—CORPS OF ENGINEERS Previous editions of this form are obsolete.

U. S. GOVERNMENT PRINTING OFFICE 19[illegible]

Budget Bureau No. 49-R...

TRIP NO. (One way) _____ 19 Sept.1956

NAME OR [illegible] VESSEL: Various

NET REGISTER TONS

VESSEL OPERATION REPORT
STATEMENT OF FREIGHT AND PASSENGERS CARRIED

TYPE OF VESSEL (Check One)
- ☐ SELF PROPELLED, DRY CARGO AND PASSENGER
- ☐ SELF PROPELLED, TANKER
- ☐ TOWBOAT OR TUGBOAT
- ☒ NON-SELF PROPELLED, DRY CARGO
- ☐ NON-SELF PROPELLED, TANKER
- ☐ OTHER

FLAG American

DEPARTED FROM—				ARRIVED AT—				CARGO DATA (If light, so state)				LEAVE BLANK
PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	PORT OR LOCALITY	DOCK	DATE	MAXIMUM DRAFT	COMMODITY	QUANTITY	UNIT[1]	WEIGHT PER UNIT	NET TONS
Harsimus Cove,N.J.	P.R.R.	Sept. 1956	7'	North River	Pier 28	Sept. 1956	7'	Car Floats	95			
								Perishable	11533			
								Cars Loaded	678			
								Cars Light	97			
								Cars Held	-			
Harsimus Cove,N.J.	P.R.R.	Sept. 1956	7'	North River	Pier 29	Sept. 1956	7'	Car Floats	167		—	
								Genl.Misc.	232			
								Cars Loaded	21			
								Cars Light	1373			
								Cars Held	233			
Harsimus Cove,N.J.	P.R.R.	Sept. 1956	7'	North River	Pr. 49-50	Sept. 1956	7'	Car Floats	275			
								Genl. Misc.	5461			
								Cars Loaded	497			
								Cars Light	2010			
								Cars Held	237			

LOCALITIES ENTERED FOR: REFUGE · REPAIRS

FUELED AT: PORT DOCK

KIND OF FUEL: OIL ☐ BBL. COAL ☐ TONS GAS ☐ GAL.

PROJECT CHANNELS USED (Where a choice exists, indicate waterways, exit and/or entrance channels used)

REMARKS

4867

I HEREBY CERTIFY that this is an accurate and complete report of Trip No. _____ of this vessel.

SIGNED

TITLE

OPERATOR: The Pennsylvania Railroad Co.

ADDRESS: New York,N.Y.

[1] Net tons, gross tons, bushels, etc.

RHB Form 1—1 Mar 57—DEPARTMENT OF THE ARMY—CORP OF ENGINEERS Previous editions of this form are obsolete.

U. S. GOVERNMENT PRINTING OFFICE 1957 O 420128

[fol. 4868]

I.C.C. EXHIBIT No. 134

I. & S. DOCKET NO. 6615—EQUALIZATION OF RATES AT NORTH ATLANTIC PORTS.

During the course of cross-examination at the April 11, 1958 hearing in the captioned proceeding, the undersigned —E. M. Talbott—was requested to supply the following data for the record. The item numbers are references to Mr. John H. Colgren's letter of April 22, 1958 in which the requests for information are summarized.

Item 5 (Transcript page 1607):

Piers 11, 12, 13 and 14 of the Central Railroad Company of New Jersey were in use as lighterage piers during the month of September 1956, the month of the cost study period, and have been in continuous use as lighterage piers since that date. Piers 11 and 14 are covered piers, and piers 12 and 13 are open piers.

Upon investigation I find that my statement at page 1606 of the transcript to the effect that CNJ Pier 12 is no longer in use is incorrect. Pier 12 was in use during September 1956 and has been in continuous use since that time.

Investment, depreciation and tax data, as of September 1956, relating to these 4 lighterage piers—Numbers 11, 12, 13 and 14—are as follows:

[fol. 4869]

Original cost	$1,168,797
Reserve for depreciation	202,035
Original cost less depreciation	966,762
Annual depreciation	18,084
Annual taxes	121,399

As is shown on pages 21 and 22 of my working papers, which were supplied to the respondents proposing port rate equalization, depreciation and taxes for the month of September are included in the cost study on the basis of one-twelfth the annual charge. Return on investment is

included at one-twelfth of 6 percent of the original cost less depreciation (page 24 of working papers).

Item 6 (Transcript page 1608):

A map is appended which shows the pier facilities of the Central Railroad Company of New Jersey at Jersey City, i.e., the lighterage piers, Nos. 11, 12, 13 and 14, just discussed, and Docks Nos. 10 and 7, together with the direct supporting yards for each.

Dock No. 10 is used exclusively for the handling of bulk cement, all of which is domestic traffic. The cement moves in covered hopper cars and is dropped into pits on the dock. It is then elevated and dropped through chutes into covered barges.

No bulk cement shipped in air-activated containers is handled through the B&O-CNJ facilities at Jersey City or St. George. The only other cement handled is bagged or otherwise packaged in small containers and moves over the [fol. 4870] covered lighterage piers just discussed.

Dock No. 7 is used exclusively for import ores and, at the time of the study, for export scrap iron. The movement of rail scrap iron over Dock 7 to vessels has largely ceased since the period of the study. The exporter has changed its location in the harbor to the Lehigh Valley's facilities at Claremont, N.J., where it has leased property and where the scrap iron is brought to shipside, in large part at least, by barge and by truck.

The investment costs and the costs of handling traffic through the direct supporting yards and over Docks 10 and 7 are not included in the cost study. However, the cars destined to these docks were included in the divisor used to compute the switching minutes per car in the classification yard from which the cars move to the supporting yards for each of the piers and docks.

Likewise, the bulk cement was included in the divisor in computing the cost per ton of the marine portion of the lighterage service. This fact tends to understate the cost per ton for the marine service on other traffic, including export-import traffic, since the average loading of the cement barges—300 tons—is considerably greater than the average lighter load for such other traffic.

Item 7 (Transcript pages 1620-1621) and Item 8 (Transcript pages 1621-1625):

Item 8

On investigation an error was discovered in the tabula-[fol. 4871] tion of cars shown as receiving a marine movement during the month of September 1956 at transcript page 1540. The correction is as follows:

Month of Sept. 1956	As Testified Tr. page 1540	Corrected
Cars floated	8,732	(no change)
Percent	84.55%	85.97%
Cars lightered	1,596	1,425
Percent	15.45%	14.03%
Total	10,328	10,157
Percent	100%	100%

The corrected total of 10,157 cars receiving a marine movement during September 1956 to be inserted at transcript page 1540 is the same as the total shown for the same month in the tabulation shown at transcript page 1541.

The error in the number of cars lightered shown at page 1540 was caused by the inadvertent insertion of the number of cars lightered in September *1957* instead of the number for September *1956*. This error does not require any change in the cost study since the division of marine expense between floatage and lighterage was based on an actual time study for the week September 24–September 30, 1956, (Tr. page 1540), and not in any way on the data in which the error was discovered. The breakdown by car count between the floatage and lighterage operation comparing the month of September 1956 and the entire year 1956 with that of the study week was given only for comparative purposes. The error discovered in the month figures is so slight as to have no real effect on their import for such comparative purposes.

[fol. 4872] *Item 7*

A reconciliation has been requested between the number of cars—1564—shown on the summary sheet of my working papers as moving via the B&O-CNJ lighterage piers during the month of September 1956 and the number of cars—corrected to 1425 (foregoing Item 8)—shown at transcript page 1540 as receiving a marine lighterage service during September.

The two figures are totals of entirely different things. The total of 1425 cars shown at page 1540 as corrected in Item 8 is the total number of cars the contents of which received a marine lighterage service by the B&O-CNJ pooled marine equipment during the month of September 1956. On the other hand, the 1564 cars shown in my working papers is the total export cars spotted for unloading and of import cars loaded during the month of September 1956 at the lighterage piers of the B&O at Staten Island and Piers 11, 12, 13 and 14 of the CNJ at Jersey City, hereinafter referred to simply as the lighterage piers. Not all of this traffic received a lighterage marine service principally because it was trucked in lieu of lighterage. Conversely not all of the traffic which moved in marine lighterage service during September was handled over the lighterage piers.

Included in the traffic which moved over the lighterage piers during September 1956 are the following which did not receive a marine lighterage service in the B&O-CNJ pooled operation:

[fol. 4873]

Trucked in lieu of lighterage or from pier floor	8,873 tons
Handled by Spencer Steam Lighter	1,598 tons
Total	10,471 tons

It is not possible without prohibitive effort and expense to determine the exact number of cars represented by these specific categories of traffic. The lighterage records show

the number of cars loaded or unloaded at the piers but no record is kept *by individual cars* of the previous or subsequent handling of the lading. That is, on eastbound traffic the records do not reveal whether the lading in individual cars after being unloaded was in fact lightered or trucked in lieu of lighterage, or on westbound traffic whether the lading in individual cars was received at the lighterage pier by truck or by lighter.

Similarly with respect to the traffic receiving a B&O-CNJ marine lighterage service, the 1425 cars shown as being lightered during September 1956 includes 324 cars of cement which passed over Dock 10 which as previously stated is used only for the handling of domestic bulk cement. These cars of cement are not included in the total of the cars moving via the lighterage piers since no costs were prepared for Dock 10 traffic.

While it is therefore not possible from a practical standpoint to make an exact reconciliation of the two totals, a reasonable reconciliation can be made as follows:

[fol. 4874]

Cars handled over lighterage piers		1564 cars
Cars receiving a B&O-CNJ marine lighterage service	1425 cars	
Less: Cars of cement	324 cars	1101 cars
		463 cars
Tons moving over lighterage pier which did not receive a B&O-CNJ marine service:		
Trucked in lieu of lighterage and from pier floor		8873 tons
Handled by Spencer Steam Lighter		1598 tons
Total		10,471

Thus the difference of 463 cars moving over the lighterage piers but not moving in marine lighter service via the B&O-CNJ during September 1956 is balanced by the 10,471 tons which also did not receive said marine service—or an average load per car of 22.6 tons. This average loading is a reasonable figure particularly since the bulk of the 10,471 tons is composed of traffic trucked in lieu of lighterage and such traffic is predominantly the lighter loading commodities.

Although an exact reconciliation *in terms of cars* between the traffic passing over the lighterage piers and that receiving a lighterage marine service via the B&O-CNJ is not practical simply because of the manner in which the records are compiled, such reconciliation is possible *in terms of tons* and was given at pages 1536-1537 of the record.

Item 9 (Transcript page 1627):

The following export-import tonnages for the month of [fol. 4875] September 1956 handled over the B&O Manhattan pier stations were included in the cost study:

	Tons		
	Carload Traffic	Forwarder Traffic	
	Trucked	Trucked	Lightered
Piers 20, 21, 22 & 23 one operation	239	139	671
Piers 39 and 40	—	12	7
Pier 65	—	9	14
Totals	239	160	692

The foregoing, of course, represents only the import-export traffic handled at the pier stations. *There was no LCL import-export traffic handled during the period.* The method of assigning costs to the pier station operations is explained at pages 1542-1544 of the record.

E. M. Talbott.